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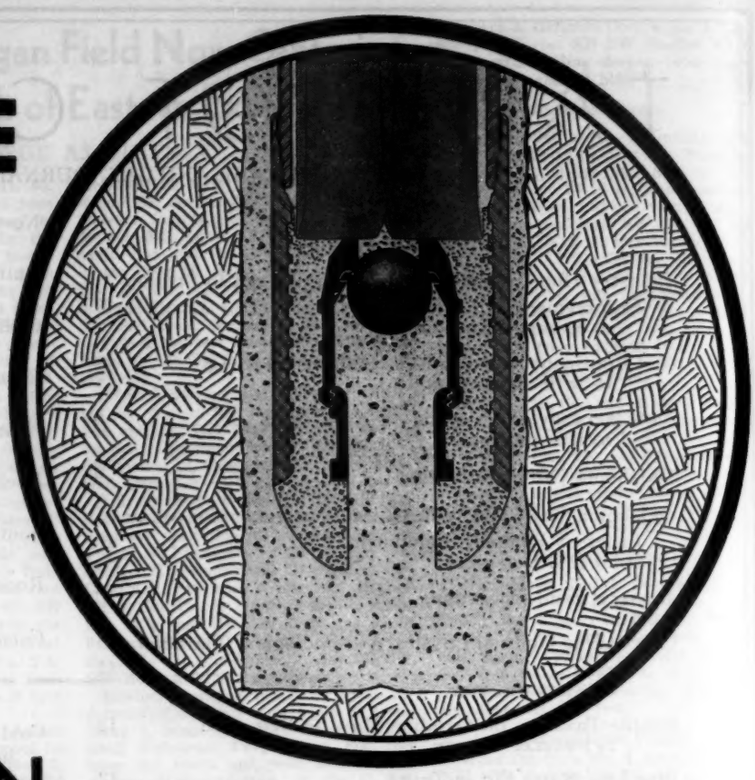

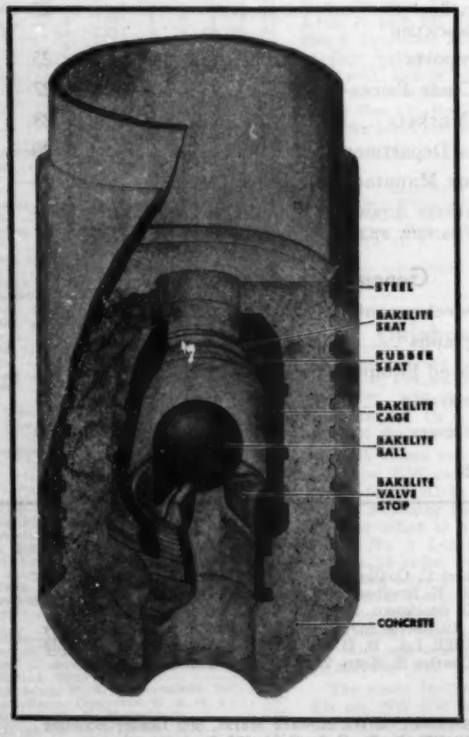

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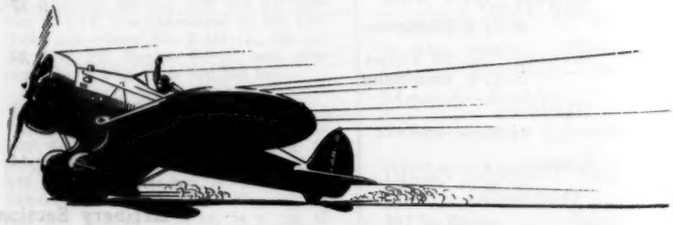

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Industry Is Hopeful Investigations May Result in Stricter Enforcement of Proration Orders

By ANDREW M. ROWLEY

WHETHER present investigations of proration enforcement in the Oklahoma City and East Texas fields will tend to curtail illegal production or runs in excess of allowables is a question uppermost in the minds of many oil men. If the investigations do nothing else than help make more effective the enforcement of state regulations and rules in the two fields named, they will have accomplished far more than most oil men expected.

Many feel there has been a reduction in the quantity of crude oil produced in excess of allowables since the investigations were started. Others are not quite so optimistic and claim that, especially in East Texas, overproduction still exists on a large scale with producers accepting prices less than 25 cents a barrel for their product.

Unsatisfactory conditions existing in the petroleum industry and present low prices for crude oil and gasoline are due almost entirely to violations of proration regulations and allowables. The output of over-produced wells has been sold at prices far under the posted schedules and manufacturers of gasoline from this cut priced crude have undersold their competitors, resulting in a lowering of quotations for gasoline.

In certain quarters it was felt a continuance of these conditions would result in additional reductions in the posted prices for crude oil. However, during the past week little talk has been heard about the price situation, the general tendency seeming to be to "let things rock along until we see what effect these investigations will have on stopping production in excess of allowables".

Effective enforcement of proration regulations would result immediately in a strengthening of the price situation both for crude oil and gasoline. So much is involved for operators and companies throughout the United States it is felt every effort will be made to tighten regulations and check the flagrant violations of the orders issued by state authorities. In this connection it is interesting to note the State Senate of Oklahoma passed a measure this week making it a felony to deal in illegally produced crude oil.

If state authorities cannot enforce their orders, the whole policy of proration will be weakened further. This policy probably is going through its most critical period right now. It has lost a number of its former adherents and there are many who are frankly doubtful if an effective enforcement will ever be achieved. But the investigations in Oklahoma and Texas may help.

Crude Oil Production in the United States

Estimated daily average production for the week ending February 4 and a comparison with previous week and one year ago, follows:

	Feb. 4	Jan. 28	Feb. 6, 1932
Oklahoma—			
Oklahoma City	88,735	63,565	77,965
Seminole-St. Louis	105,620	112,640	114,530
Remainder of State	193,125	194,030	203,115
Total Oklahoma	387,480	370,235	395,610
East Texas—			
Lathrop	113,815	113,825	122,389
Kilgore	90,850	90,874	110,457
Joiner	93,053	93,035	116,234
Total East Texas	297,718	297,734	349,080
West Texas	157,229	157,008	176,686
North Central Texas	70,645	70,631	73,635
Texas Panhandle	45,172	46,196	50,363
East Central Texas	56,005	48,505	49,590
Gulf Coast—Texas	131,261	130,315	108,255
Southwest Texas	54,110	55,853	57,510
Total State of Texas	812,140	806,272	865,119
Kansas	96,310	94,225	97,815
North Louisiana	29,975	30,165	28,345
Gulf Coast—Louisiana	33,548	34,412	29,945
Arkansas	31,500	32,150	33,505
Eastern Fields	109,000	111,000	118,000
Rocky Mountain area	76,187	75,590	80,906
California—			
Santa Fe Springs	53,750	53,750	66,000
Long Beach	67,000	67,000	77,000
Playa Del Rey	12,500	12,750	21,000
Elwood	14,000	13,500	16,500
Kettleman Hills	53,500	54,000	61,000
Remainder of State	254,250	259,000	257,500
Total California	455,000	460,000	499,000
Total United States	2,031,140	2,014,049	2,148,245

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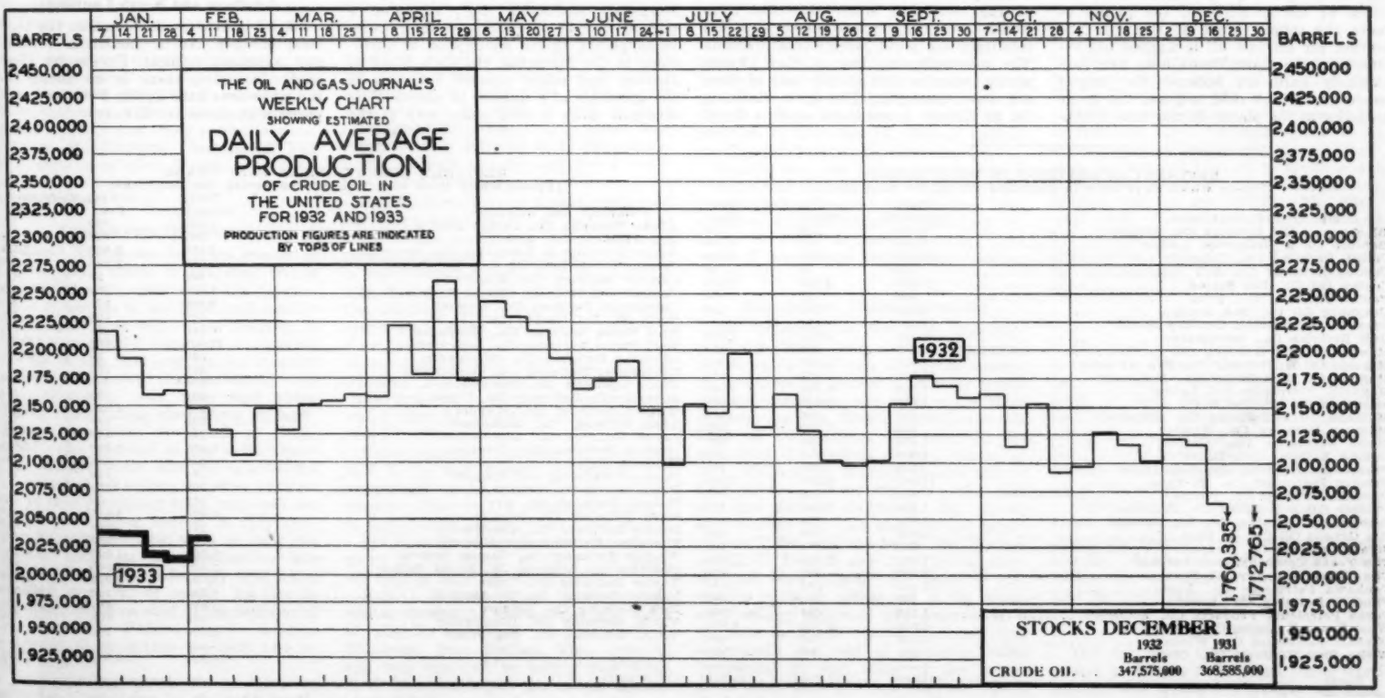

Mid-Continent Refinery Crude Oil Runs During February at About Same Level as Year Ago

By W. T. ZIEGENHAIN

Refinery crude runs in the Mid-Continent area during February will increase 7,720 bbls. daily compared with those for January and will closely approximate those for February a year ago.

The revised schedules of plants in Oklahoma account for the larger share of the increase. The higher schedules of plants in East Texas, Kansas, Arkansas and North Louisiana balanced the reductions reported for plants in North-Central Texas and West Texas.

For more than a year refinery operations in the Mid-Continent have been kept relatively constant from the standpoint of the volume of crude runs to stills, despite the building of many small plants in the East Texas Field. The runs during this period have been low in comparison with operations in recent previous years, but from the fact that the total has been held between 400,000 and 450,000 bbls. daily for such a long time, it may be assumed this is the "irreducible minimum," and represents the volume of crude absorbed as refined products in the marketing territory most logically served by the Mid-Continent refineries.

East Texas Refineries

The growth of refining in the East Texas area during the past two years, and during a time when it has been necessary for refiners to curtail operations in all other areas has had a more serious effect on the general market for refinery products than the actual East Texas refinery operations would suggest.

At present there are 32 refineries in the East Texas Field and there are several more improvised plants that run intermittently. However, the latter process but small quantities of oil. These 32 plants have enjoyed being close to a source of low priced crude of good quality and being in a location from which the products could be economically distributed in competition with older refineries. This winter has caused a slowing up of refinery operations there because of the inability of the plants to move the topped crude as fuel oil. The market for all fuel oil is limited but refiners in the East Texas area are particularly hard hit because the topped crude has a high cold test and the great majority of the plants do not have cracking facilities with which to reduce it. So, even though cheap gasoline from East Texas is being forced upon competitive markets at this time and is a major factor causing the weakness of the entire Mid-Continent market, these plants will be a more serious factor in this respect next summer, when cold test won't mean so much on the fuel oil.

There is a constant changing of names and operating schedules among the East Texas plants as may pe expected because of the uncertain crude situation from month to month, extreme competition and relatively low plant investments involved. The accompanying list of East Texas plants indicates that all but four of them are now operating. The Unit Refining Co. at Kilgore is one listed as shut down, this being the result of a fire late in January. A slight change in name has resulted in what was formerly the Arrow Refining Co. The new company is known as the Arrow Refining & Producing Co. and is headed by H. B. May as president.

Mid-Continent Refinery Operations

Scheduled Average Daily Crude Runs

	1929	1930	1931	1932	1933
January	508,550	535,460	478,795	405,910	399,405
February	506,800	519,355	470,125	411,280	407,125
March	514,950	531,500	449,634	401,155	.....
April	530,530	555,250	497,391	419,750	.....
May	577,500	574,300	510,640	436,160	.....
June	583,030	572,250	567,915	440,765	.....
July	565,800	548,475	588,840	433,255	.....
August	555,250	526,400	590,545	427,710	.....
September	552,300	498,710	588,105	430,430	.....
October	544,720	518,800	472,190	401,995	.....
November	545,473	506,700	480,440	408,180	.....
December	540,630	478,360	456,525	416,275	.....

Operations by Districts

	February Dy. crude capacity (bbls.)	February Dy. crude runs (bbls.)	January Dy. crude runs (bbls.)	February daily increase (bbls.)
Arkansas	48,000	20,800	20,300	500
Kansas	161,500	78,900	75,000	3,100
North Louisiana	41,000	27,100	26,750	350
Oklahoma	309,900	138,750	128,550	10,200
North Central Texas	216,400	77,360	84,665	*7,305
West Texas	144,100	37,220	39,620	*2,400
East Texas	86,850	26,995	24,520	2,475
Total	1,007,750	407,125	399,405	7,720

*Decrease.

Oklahoma refiners have increased their total runs approximately 10,000 bbls. per day during February compared to January. This increase is the result of the Barnsdall Refineries, Inc., resuming a normal rate of operations in their Oklahoma plants, to the resumption of operations in the Marathon Oil Co.'s plant at Bristow and minor upward revisions in the schedules of a number of plants. Construction work is now under way at the Marathon plant at Bristow which will include a 1,500-bbl. combination topping and cracking unit, vapor recovery system and auxiliary equipment.

Kansas

Kansas refiners will show a slight increase in operations during February due principally to the resumption of partial operations in the Sinclair Refining Co.'s plant in Argentine. A combination skimming and cracking unit is nearing completion there but the plant will not be ready for full operation for another week or two. The Globe Oil & Refining Co. is also putting the finishing touches on its new plant at McPherson. All of the major equipment is in place and test runs will be started late in the month. The full operation of the plant is not expected before the middle of March.

North-Central Texas

Only a slight, downward revision was made in the refinery operations of the North-Central Texas group of refineries. Contributing to this decrease were the shutting down of the Simms Oil Co.'s plant in West Dallas and the shutting down of the Allstate Refining Co. at Thrall. The North-Central group of refineries will run 77,360 bbls. of crude in February compared with 84,665 bbls. in January.

West Texas

Except for the shutting down of the Bobrose Oil & Refineries plant at Luling and the resumption of operations in the Howard County Refining Co.'s plant, the operations of the West Texas refineries will be little changed in February compared with those of January. The February schedule calls for daily total runs of 37,220 bbls. compared with a schedule during January of 39,620 bbls.

Several construction jobs are under way in this area, one of the most important of which is the building of a new crude unit at the Colorado refinery of the Coltex Refining Co.

Arkansas and North Louisiana

Slight increases are shown in the total runs of both North Louisiana refiners and Arkansas refiners. Except for these slight increases, there is no change in the operations here during February compared with those for January.

REFINERY OPERATIONS IN WEST TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Aver. daily runs— Feb.	Jan.
Bluebonnett Oil Refining Co., Wickett	5,000	100	100
Bobrose Oil & Refineries, Luling	2,500	(*)	1,000
Coltex Refining Co., Colorado	10,000	4,500	4,500
Concho Refining Co., San Angelo	500	50	50
Cosden Oil Co., Big Spring	15,000	4,500	3,600
Pentex Refining Co., Echo	400	50	50
Grayburg Oil Co., San Antonio	6,000	500	450
Great West Refining Co., Big Spring	5,500	(*)	(*)
Gulf Refining Co., Sweetwater	5,000	3,400	3,000
Howard County Refining Co.	2,500	500	(*)
Humble Oil & Refining Co., San Antonio	5,000	1,300	1,300
Humble Oil & Refining Co., McCamey	15,000	(*)	(*)
Magnolia Petroleum Co., Luling	7,000	3,500	4,500
Marathon Oil Co., Del Rio	5,000	1,600	1,500
Mentone Oil & Refining Co., Mentone	300	100	100
Moutray Refining Co., Hawley	500	200	200
Misko Refineries, Inc., Laredo	1,500	800	800
Octane Refining Co., Beard	2,000	1,000	1,200
Paramount Refining Co., San Angelo	2,000	500	800
Pasotex Petroleum Co., El Paso	14,000	6,000	8,000
Phoenix Refining Co., Pettus	800	800	600
Pioneer Oil & Refining Co., Somerset	1,500	1,000	800
Richardson Refining Co., Big Spring	6,000	(*)	(*)
Rio Grande Oil Co., El Paso	6,000	500	500
Signal Gasoline Co., Texon	500	(*)	(*)
The Texas Company, San Antonio	3,000	1,000	1,000
The Texas Company, El Paso	2,000	500	800
Tonkawa Petroleum Co., Pyote	5,000	(*)	(*)
Phoenix Refining Co., Laredo	800	450	400
Texas Petroleum Products Co., Somerset	1,500	400	400
West Texas Refining Co., Pecos City	6,000	3,000	3,000
Wickett Petroleum Co., Wickett	2,500	800	800
White Star Refining Co., Cisco	500	160	160
Total	144,100	37,220	39,620

*Shut down.

REFINERY OPERATIONS IN EAST TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Aver. daily runs— Feb.	Jan.
Alamo Refining Co., Camps Switch	2,500	800	(*)
Arp Refining Co., Arp	500	800	500
Arrow Refining & Producing Co., Overton	2,500	2,000	1,500
Beacon Oil & Refining Co., Henderson	4,500	3,000	1,500
Canyon Refining Co., Kilgore	200	50	(*)
Central Refining Co., Friars Switch	7,500	(*)	(*)
Constantin Refining Co., Overton	3,000	375	400
Cook (R. K.) Gladewater	200	100	125
East Texas Refining Co., Henderson	4,000	(*)	(*)
East Texas Refining Co., Longview	10,000	3,000	3,000
Gladetex Refining Co., Gladewater	500	30	(*)
Gladewater Refining Co., Gladewater	500	300	(*)
Gregg Refining Co., Gladewater	300	150	110
Johnsonville Refining Co., Omega	200	50	(*)
Kilgore Refining Co., Kilgore	1,500	2,000	1,900
Lake Refining Co., Gladewater	500	180	250
Locke Refining Co., Gladewater	200	140	120
Overton Refining Co., Overton	3,500	3,000	1,800
Panama, Kilgore	250	150	250
Pennant Refining Co., Kilgore	250	120	150
Petroleum Refractionating Co., Longview	10,000	(*)	(*)
Roland Refining Co., Arp	200	50	(*)
Rusk Refining Co., Overton	3,000	1,600	1,000
Sabine Refinery Co., Gladewater	200	200	170
Shoreline Refining Co., Kilgore	300	300	(*)
Sinclair Refining Co., Camps Switch	5,000	1,000	1,200
Southern Oil Refining Co., Reeds Switch	2,500	1,000	800
Taylor Refining Co., Tyler	15,000	9,000	8,800
Trinity Refining Co., Gladewater	250	190	200
Unit Refining Co., Kilgore	200	(*)	100
V.O.E. Refining Co., Gladewater	500	500	650
V.O.E. Refining Co., Big Sandy	2,000	(*)	(*)
Total	86,950	26,995	24,520

*Shut down.

(Continued on Page 33)

Now Actually Putting Lid on East Texas Field; Enforcement at Last Being Made Effective

By L. E. BREDBERG

FORT WORTH, Tex., Feb. 6.—There is no doubt in the minds of the supporters, also some of the opponents of proration, that Railroad Commissioner E. O. Thompson's personal investigation and supervision in the East Texas Field has helped to prevent considerable oil being produced above the allowable. In some cases he has asked the attorney general's department to obtain injunctions to prevent the producing of wells over the allowable, which that department readily did, and in some other cases merely had to plant deputized field men of the commission on the leases and see that the wells were shut in.

Why such supervision had not been done before the situation became so doubtful that members of the legislature recommended an investigation of the handling of the proration laws by the Railroad Commission will be taken up by the legislature's investigation committee at its first hearings.

Sam Ross, president of the East Texas Oil Land Owners Association, who has been active in trying to enforce proration in the field, announced that since Colonel Thompson came into the field some old cases have been taken up and disposed of. He said the regulations are now being enforced with the same employes the commission has had for some time, and favored ascertaining why such personal supervisory enforcement had not been taken sooner.

Homer Pierson, in charge of proration enforcement men in the field, will be the first witness called by the legislature's investigation committee. Preston L. Anderson of San Antonio, C. M. Turlington of Tatum and Sidney Latham of Longview have been named by the committee of the house on oil, gas and mining as a steering committee in the investigation. Representative Bob Long of Wichita Falls, chairman of the oil, gas and mining committee, who has made several accusations at the Railroad Commission, and T. J. Renfro, of Fort Worth, vice chairman, will act as ex-officio members of the committee.

Landowners Co-operate

Colonel Thompson, in a statement at Kilgore, gave credit to the East Texas land and royalty owners for the tightening of proration in the field, and well he might have done this after hearing of several such parties going out to a couple of wells in the field and forcing them to be shut in to prevent them producing over their allowable. Six men and three women, representing themselves as landowners, comprised the band of "vigilantes" who marched on the wells. Operators of other wells who fail to abide by the commission's orders, but who have no fear of that regulatory body, may look for trouble from other sources if they continue to produce their wells as they see fit, for many of the landowners are against unequal withdrawals and have signified intention of taking the law in their own hands to shut in the wells until the three-judge Federal court's decision is handed down within the next two or three weeks.

In remarking about the co-operation given the commission by the landowners, Colonel Thompson said: "The past week marked the turning point in the fight to enforce proration in the great East Texas oil field. This was made possible by the splendid co-operation of the East Texas landowners.

"While reorganization and consolidation of the Railroad Commission forces has brought greater efficiency, and more effectiveness, the major part of the credit belongs to the landowners, the people that were here before the oil field came. The landowners are awake to the situation and are determined to protect their rights, and see that their rightful possessions are not dissipated in a wild orgy of flowing wells and overproduction.

"While they would like to have more oil than is now allowed under present orders, they realize that there is not enough market to go around and that everybody should have his proportionate share of the available market. The greater portion of the operators realize that the breaking down of proration would mean complete destruction for many of our operators, as well as deprive the landowner of the wealth that is his. There is a small per cent of the operators that are determined to get more than their share regardless of what it may mean for the other man.

"If the landowners and operators who are interested in seeing each man get his proportionate share of the available market will continue to report violations and furnish information, as they have in the past week, proration can and will be enforced."

Cases in Court

Federal Judge James Wilson of Fort Worth has granted injunctions against three operators and a fourth restraining order was signed, but is held in abeyance pending communication with the defendant.

The attorney general's department and attorneys for the East Texas Refining Co. will clash in Judge Wilson's court in Fort Worth on February 7 when the state department seeks to restrain that company from exceeding proration allowable. The company had heretofore been one of the main followers in all proration matters, and in several instances has led in championing it.

Decision of the three-judge Federal court which heard arguments for and against the present method of prorating the field, is expected to be rendered within two or three weeks. It is presumed the Railroad Commission will have another plan to offer if the court nullifies the present orders which is expected. The new method will have to be of considerable difference from that now in use or the commission may be cited for contempt of court as per the warning given before the trial at Houston.

Six men from the Internal Revenue office of Dallas have entered the field to check up on taxes that have accrued since the Federal Government tax on gasoline went into effect June 21, 1932. Several of the small plants have not kept accurate record of their purchases and sales, consequently demands have been made by the government representatives that the plants install sufficient bookkeeping systems, as provided in the revenue act, so that their books can be easily and readily checked when visited by these men.

Many have alleged that tax evasion has been one reason for the smaller refiners being able to stay in the business and operate their plants under existing conditions in the industry, and those which have failed to observe the Federal tax laws will no doubt find themselves in trouble if they have failed to render proper tax statements to the Government on the gasoline they have sold. Some plants have anticipated such trouble and have paid this tax. There may be a "show down" at some of the plants, and some of them may be shut down temporarily, if not permanently, for failing to abide by the Federal tax laws. They might have escaped the state tax collecting agency indefinitely, but not the Federal agency. If some of the plant owners become too hard pressed by the tax accountants and the government agency they no doubt will forfeit their plants and abandon them to the Government.

Witnesses at State Senate's Oil Investigation at Oklahoma City Make Serious Charges

OKLAHOMA CITY, Okla., Feb. 7.—Governor Murray's charge that Senator Woody Dixon had promised a prospective witness his influence in obtaining the man a state job if he would testify in the senate oil investigation committee's hearing was successfully refuted at Monday's meeting of the committee. The charge was made in an affidavit said to have been signed by ex-Lieut. N. F. Poor. Governor Murray referred it to the senate, which at once unanimously voted confidence in Senator Dixon.

At Monday's hearing it was announced that Poor was nowhere to be found, and six witnesses testified as to the facts concerning a meeting of independent oil men to which Senator Dixon had been invited. S.M. Stauffer, of the Stauffer Petroleum Co., testified that it was not Dixon who called Poor aside, but on the contrary, Poor called the senator into another room. Stauffer said that when the men returned to the meeting room Poor's "face was red" and that Senator Dixon stated that he would not hire any witness.

Other witnesses testified that Poor had said if he had $1,000 he would "tell everything" as he wanted to get to California. Poor was a dismissed employe in Col. Cicero Murray's oil field militia.

Six individuals wanted for their testimony in the illegal, or "hot" oil cases, are said to have left the State.

Ray C. Walker, whose former stenographer charged he was a buyer and seller of illegally produced oil, returned to Oklahoma from Dallas, Tex., Sunday, and was expected to testify this week. E. C. Duncan, former partner of Walker in the life insurance business, which was said to have been a blind for illegal oil deals, was arrested in Vinita and brought back to Oklahoma City to testify.

The testimony of A. C. Fletcher, broker for the Globe Oil & Refining Co., was released by the committee Saturday. It declared that Frank Clark, owner of a pipe line here, and Ed Tippitts had negotiated a deal for running illegal oil in addition to allowable oil from a well of the Capitol Producing & Refining Co.

Tippitt also told Clark that he would "take a club and run the soldiers off the lease" if they sought to interfere with overproducing, Fletcher's testimony related. He added he understood that "protection" was to be had during running of the oil.

Miss Sellers Causes Sensation

The sensation of the week was supplied by Miss Vera Sellers, a young stenographer. She told of having worked for the firm of Parker & Walker whose insurance business, she said, was a blind covering up the firm's activities in illegal oil transactions. She testified she saw Ray C. Walker, distant cousin of Mrs. William H. Murray, pass a roll of bills to Col. Cicero Murray; she said she saw Robert Galbreath, Jr., paying Mr. Walker "for his share of oil transactions." She said she heard Mr. Walker and E. C. Duncan say that Colonel Murray had been "fixed," she testified concerning visits of militiamen to the insurance office; she said she learned of a big deal in which Phillip Flaxman was concerned; she told of strangers being introduced to her, some of the names given being those of "Sam Hawks," "Jack Walton" and other notables. But she did not know if the names were correct. She named Mark Kleeden and A. W. Parker as being connected with "deals" handled in the "blind" office.

Miss Sellers was followed to the stand by Phillip Flaxman, independent operator from Sayre, who told of contacting E. D. Hicks, Jr., and arranging for a corporation commission order from E. R. Hughes and C. C. Childers which would break proration and permit Messrs. Flaxman, Walker and Duncan to handle about 20,000,000 bbls. of oil. Commissioner Hughes was to get $50,000, Mr. Flaxman said. Commissioner Childers and Mr. Hicks, the latter secretary of the commission, were to get $25,000 each, the witness said. Denials were made by the three accused men.

Miss Tibbs Corroborates

The came Miss Pearl Tibbs, who substituted for Miss Sellers three weeks in the "insurance" office. She corroborated much of Miss Sellers' information, but told of seeing Cicero Murray visit the office and of seeing Mr. Walker give him "a large sum of money." Both young women said considerable drinking went on at the office.

Cicero Murray, claiming perjury, asked Lewis Morris, county attorney, to investigate the testimony of the two women, but Mr. Morris held that the girls were under the committee's jurisdiction and that he could take no action.

Unwilling Witness

The net grew tighter about the men named by Misses Sellers and Tibbs when hearing was resumed Thursday morning.

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Oklahoma City Field Will Afford Opportunity for Many Types of Pumping Equipment

By L. G. E. BIGNELL
Petroleum Engineering Editor

The Oklahoma City Field was four years old on December 4, 1932, and up to January 1, 1933, it had produced 121,643,335 bbls. of recorded oil from the 997 oil wells completed up to that time. On February 1 there were 956 active oil wells out of 1,015 total completions, the other 59 being either plugged and abandoned or converted to gas wells by producing from the upper formations. The allowable fixed by the Oklahoma Corporation Commission for February is 94,465 bbls. per day, an increase over the daily production during January.

The thousandth well in this field was completed on January 25 and is known as the Phillips Petroleum Co.'s No. 2 Roden, NW cor. SW NW Section 2-11-3w. It is reported to have produced 827 bbls. of oil and 600 bbls. of sand in 65 minutes with 136,000,000 feet of gas per day. The well is producing from the Wilcox sand found at 6,246-6,328 feet.

Acreage in Field

The Oklahoma City Field contains a total of about 12,880 acres which is divided about as follows between the various producing zones:

Zone—	Total acreage	Wells comp.	Acres per well	Producing wells Jan. 1
Wilcox	*5,233	414	*6.4	442
Simpson ..	5,956	449	11.2	438
Lime	1,590	107	14.8	78
Fault zone.	69	6	10.0	6
Total ...	12,839	997		956

*The average acreage per well in the developed area of the "Wilcox sand" on February 1, 1932, was 6.4 acres. The usual spacing in the south end of the field is one well to 10 acres, and in the north end, the wells average 5.7 acres. In the W half, NW, Section 2, Township 11n, Range 3w, there are 31 producing wells, or an average of 2.6 acres per well.

In a paper by D. A. McGee and W. W. Clawson, Jr., geologists with the Phillips Petroleum Co., and Indian Territory Illuminating Oil Co., respectively, published in the A.A.P.G. bulletin of October, 1932, it is stated:

"The total productive area of the 'Wilcox sand' is estimated to be 5,233 acres, or 40.8 per cent of the total estimated productive area of the field. Of the total estimated productive acreage, 3,433 acres are within the corporate limits of Oklahoma City. Of the area within the city limits, 1,695 acres are in the U-7 zone, that part of the city open to drilling. The remaining 1,738 acres of the area within the city limits underlie a closely built residential section in which drilling is prohibited. Some of the oil in this restricted area will undoubtedly be produced from wells drilled in the unrestricted areas adjoining it. At present, it is estimated that there are 1,375 acres in the productive 'Wilcox sand' zone which can and will be drilled."

The lime area has practically all gone to water, and the movement of water in the Simpson sands has been sufficient to make it impracticable to drill any additional wells there. The Fault zone is limited and it is hardly probable that any new wells will be drilled in it. This leaves only the Wilcox sand for any new wells and it is estimated that perhaps 100 additional locations will be drilled in this area.

The productive zone in the Wilcox sand varies in width from 1.5 miles in the north part of the field to .25 miles on the west and south sides of the field, it is found at depths of from 6,200 to 6,500 feet. Only seven wells in the Wilcox sand are now classified as water wells.

New Order

Under date of January 13 the Oklahoma Corporation Commission issued a new order covering Oklahoma City Field with the theory that the wastage of gas could be reduced very materially and after reciting the general field conditions as they understood them made the following recommendations:

"And be it further ordered that, in accordance herewith, such operators should be expected to tube or otherwise equip the oil wells in the Oklahoma City Field so as to prevent the unnecessary wastage of natural gas and that this should be done within the shortest possible time.

"It is further ordered that, in accordance herewith, such operators should be expected to meter gas produced from oil wells whether or not such gas is utilized; and particularly that all operators and manufacturers should meter all gas used, manufactured, consumed or wasted in the so-called 'casinghead' plants and particularly should meter all residue, or tail gas dissipated or blown into the air; and report thereon regularly to the Corporation Commission, as now provided for the reporting of production of gas from gas wells; and particularly should report separately the amount of all gas dissipated or blown into the air."

While this order recommends the tubing of oil wells and the installation of gas meters it is not so worded as to indicate that it will be enforced at all wells.

It has always been contended by many operators that it would have been better if the oil wells had been tubed as soon as completed and produced through chokes and under back pressures on the sand. This would have conserved gas but as it was not done and the bottom hole pressures in the oil producing formations are appreciably reduced below their original pressures it is doubtful now if this procedure would greatly benefit the field.

Tubing will be run in wells as the natural conditions change to make smaller flow strings necessary to continue to produce the well naturally but even in that detail operators have a wide range of opinions as to size of tubing best suited to their individual wells so that anything from a tapered string to 4-inch tubing may be installed. Metering of the gas as it leaves the oil and gas separator has been experimented with in Seminole and other fields but without any economical results. The amount of gas that was passing to the air or casinghead plant was known but this knowledge did not give the answer as to how to lower the gas-oil ratio at the well.

Engineers and production men are quite competent to determine the best and most economical methods of producing their individual wells and it is safe to assume that they will apply them as the economical conditions justify.

Future Trend

Ever since this field was first discovered the question has been asked: "How will they produce the wells when they cease to flow naturally?" The general question is probably no nearer answering now than three or four years ago, but it has been found that the field men have kept their wells on production by employing the means nearest at hand.

During the early life of the field some wells were produced by the introduction of high pressure gas from one well into a well lacking sufficient natural pressure to flow. Field regulation placed upon the large gas-oil ratio wells and the reduction of pressures have made this method no longer practicable.

It has been the usual practice to hook up the low pressure well with gas lines and secure residue gas from natural gasoline plants with which to produce them. This practice will probably be followed at other wells that cease to flow naturally especially by the larger companies owning gasoline plants or having access to residue gas.

During the early development many wells were finished with concrete foundations for jack-posts, samson posts and pumping outfits and many wells have been equipped with this type outfit although the practice of finishing wells for pumping outfits has not been generally followed for some time.

One problem that is going to require careful study will be the production of wells on small tracts especially in the north part of the Wilcox sand zone. There are many wells owned by small operators that do not have much ground space around the well that will have to work out special problems in production as soon as the natural pressure falls below that necessary to flow the wells.

These operators might well consider combining together to install central plants of sufficient size to operate three or four wells and such plants could be of the compressor type to furnish gas for flowing the wells. By such an arrangement the cost of the equipment could be divided among the several wells serviced and if anything like the present proration schedule is enforced in the future it will be possible to spread the production time over the wells serviced by the plant in such a way as to permit reasonably small size units to be used in a satisfactory manner.

This plan has some advantages in that the wells might be later equipped with the pneumatic pumping cylinders described in an article in the October 13, 1932, issue of The Oil and Gas Journal. This unit could be operated by air or gas compressed in the same plant used for gas lift and would provide a means of continuing mechanical lifting during the major portion of the life of the well.

Flowing Life

With the tendency of rather rapid increase in gas-oil ratios in many portions of the field coupled with lowering of the reservoir pressures it would seem that this year will see the necessity of many wells in the Oklahoma City Field going to mechanical production methods.

From work done in the Oklahoma City Field about 18 months ago by engineers for the U. S. Bureau of Mines it was learned that there was about 885 feet of gas dissolved in a barrel of oil in the reservoir at a pressure of 2,300 pounds per square inch. At 1,100 pounds pressure the barrel of oil contained only 430 feet of gas. This indicates quite clearly that with the withdrawal of oil from any of these producing zones space is left for escape of gas from the oil as the bottom hole pressures are reduced.

The fact that the gas-oil ratio in some portions of the field has increased from around 1,800 feet to 5,000 feet per barrel indicates quite clearly that a sufficient volume of oil and gas has now been produced to effect a reduction of occupied space in the formations and a lowering

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January Field Operations Show Decline in Completed Wells and New Drilling

Field operations east of California fell off in January, during which month only 962 wells were completed, a decline of 217 from the results in December. Some large initial producers in the Conroe Field in the Gulf Coast division and in Lea County, New Mexico, increased the average initial production of the wells. Drilling operations slowed up somewhat and at the close of the month only 725 rigs were reported and 2,114 wells were classified as drilling, a total of 2,839 operations, a decline of 122 in the total.

Following is the summary of the month's work:

SUMMARY OF ALL FIELDS

Wells Completed in January

	Comp.	Prod.	Dry	Gas
Eastern	92	157	7	30
Central Ohio	25	16	4	18
Lima	6	18	3	1
Indiana	17	100	11	5
Michigan	13	2,005	3	1
Kentucky	19	240	7	2
Illinois	1	5	0	0
Kansas	48	10,998	13	2
Oklahoma	99	31,567	42	2
North Central Texas	96	1,177	53	5
E. Cent. and E. Tex.	371	14,650	17	0
West Texas	24	6,123	1	2
Texas Panhandle	15	2,070	2	2
Gulf Coast	128	141,113	32	1
Southwest Texas	80	21,639	38	3
North Louisiana	21	2,220	10	3
Arkansas	7	300	4	0
Mississippi	1	0	0	1
Montana	2	60	1	0
Wyoming	1	100	0	0
Utah	2	0	2	0
New Mexico	5	36,672	0	0
Total January	962	271,140	257	78
Total December	1,179	225,741	310	88
Difference	217	45,399	53	10

Rigs and Wells Drilling

	Rigs	Drlg.	Ttl.
Eastern	62	139	201
Central Ohio	24	65	89
Lima	3	20	23
Indiana	6	66	72
Michigan	52	68	120
Kentucky	6	43	49
Illinois	1	10	11
Kansas	40	89	129
Oklahoma	129	330	459
North Central Texas	36	146	182
E. Cent. and E. Texas	134	193	327
West Texas	27	115	142
Texas Panhandle	12	58	70
Gulf Coast	27	213	240
Southwest Texas	46	158	204
North Louisiana	56	104	160
Arkansas	25	27	52
Mississippi	4	17	21
Alabama	0	4	4
East Texas gas area	4	20	24
Montana	5	37	42
Utah	0	15	15
Wyoming	10	61	71
Colorado	7	59	66
New Mexico	9	57	66
Total January	725	2,114	2,839
Total December	763	2,198	2,961
Difference	38	84	122

Conroe Field Presents Many Interesting Unusual Physical and Geological Characteristics

By NEIL WILLIAMS

HOUSTON, Tex., Feb. 6.—Approximately 150 wells now have been completed in the Conroe Field and these are located over such an area that by a correlation of the various wells considerable data have come to light concerning the producing zones, the physical characteristics of the entrapment and other structural conditions. As in the majority of fields there are some unexplainable peculiarities but, in the main, contrary to early predictions, a fairly uniform and consistent producing horizon has been proved.

Conroe has been variously designated as a large, deeply-seated salt mass of the nonpiercement type underlying an area of roughly 15,000 acres; a nose from the old Jackson-Yequa shore line which has undergone subsequent uplifting and faulting; or even as a nonconformity or shoreline proposition such as East Texas. Outlining and development to date have been characteristic in many ways of a deeply-seated salt dome field. On the other hand, the torsion balance surveys have not given any indication of underlying salt and the large area of the field is unusual for a salt dome, leading many geologists to the nose theory. That it is a nonconformity deposition along the Jackson shore line by a receding sea is possible but this theory has not been accepted generally so far.

Whatever the field is basically is of little concern for this article. It can be said, though, that the productive horizon is in the form of a large dome dipping off rather steeply to the north and east but having a more or less gentle slope to the south. Particularly striking is that the top is comparatively flat, this table or shelf covering a fairly wide extent with wells on it finding only slight variance in the top of the sand. Evidence of minor faulting is present.

Shales Predominate

The productive horizon consists of sands and shales laid down in the lower Jackson and upper Yequa time. Shales predominate, this being particularly characteristic of the Jackson, with the production being found in sands extending or lensing through the horizon. The Jackson portion, or to be more specific, the base of the Dibollensis, so far has carried chiefly gas which extends on down into the Cockfield (upper Yequa) with the actual oil pay lying in the sand and sandy shale beds topped around 100 feet below the top of the Cockfield.

In the past the line of demarcation between the base of the Dibollensis and the Cockfield has been difficult to determine at Conroe, the entire producing horizon being sort of a transition between the Jackson, a marine deposition, and the Yequa, typically a nonmarine formation, and the entire horizon has been classed by many paleontologists as still being in the Dibollensis. However, lately the identication of a fossil known as the Massialina as characteristic of the Cockfield has facilitated in distinguishing the separate formations at Conroe.

Both drilling operations and production at Conroe have turned out more regular and consistent than in any of the other Eocene fields which have been developed to date. Such fields have always been extremely spotted, with sands irregular, wells of comparatively short life with more or less low and unsatisfactory oil recovery. However, at Conroe the sand sections are thicker and more uniformly prolific with the sand having such characteristics as to indicate a fairly high recovery.

The producing horizon at Conroe takes in from 250 to 300 feet, including the several separate and distinct zones. The upper part of this, or gas zone, is a section of 150 to 170 feet consisting largely of shales in the base of the Dibollensis, or lower Jackson, and is topped at its highest around minus 4,550 to 4,570 feet (subsea). This section is strictly gas with a small content of light distillate although down dip about 2½ miles to the southeast from the top of the structure an oil producer (Plummer & McDaniel's No. 1 Keystone Mills, A. S. James Survey) has been completed. This well topped the section at minus 4,822 feet with bottom of hole at minus 4,990 feet. This well did not get any water. A quarter mile up to the north, another well, Steinberger and others' No. 1 South Texas Development Co., made a producer in the bottom of this section and in the top of that section designated as the Conroe pay.

The latter section immediately underlies the upper gas zone although it is not believed in direct communication with it. Over a large portion of the top of this is a gas cap or free gas area in a sand and shale formation averaging 25 to 30 feet in thickness but thinning and being pinched out down the sides under the dipping upper gas zone contact. This gas is separate and distinct from that in the upper gas zone and is in direct contact with the underlying oil sands.

The oil saturated section is from 90 to 95 feet in thickness sands and sandy shales. This seems to be divided into two main parts, these being separated by a shale break of from 10 to 25 feet in thickness. From well to well there are also other varying shale, and sometimes lime breaks and a few wells have encountered mostly shale but in general the two saturated sand sections are fairly uniform throughout the field. The base of the lower section runs into shales.

Underlying the oil section is a horizon carrying salt water. This apparently is entirely separate from the oil sands above with the water having no relationship or connection with the water table in the field, and probably is a formation which carries only water. This is indicated in the fact that this water is encountered in the highest part of the field from 40 to 50 feet above where much lower wells drilled around the sides of the field found water. Considerable alarm was felt at first when these "high" wells drilled through the oil saturated sections into this water horizon, and the fact that "lower" wells drilled out around the high part went deeper without going into water puzzled operators for some time but the present theory of a separate water sand seems to be a satisfactory explanation.

Separate Water Horizon

Existence of the separate water horizon was indicated first by Humble Oil & Refining Co.'s No. 1 Dobbins in the Ransom House Survey, which was completed last September and which to date is one of the highest wells in the field. When completed there were comparatively few wells and this one was more or less of a wildcat located more than a mile and a half southeast of the then existing production. That well drilled to a total depth of 5,113 feet (minus 4,955 feet subsea) where it was in water sand. Plugging back 14 feet it was completed making pipe line oil. At that time possible faulting was given as an explanation of the water as other wells had drilled below that depth without going into water. Since then numerous wells have been completed and quite a few of these, located around the apex of the structure where there should be no water in the producing horizon, have drilled through the oil saturation and into water and have had to be plugged back. At the same time, a number of outlying tests which have been abandoned in water, have enabled a pretty good determi-

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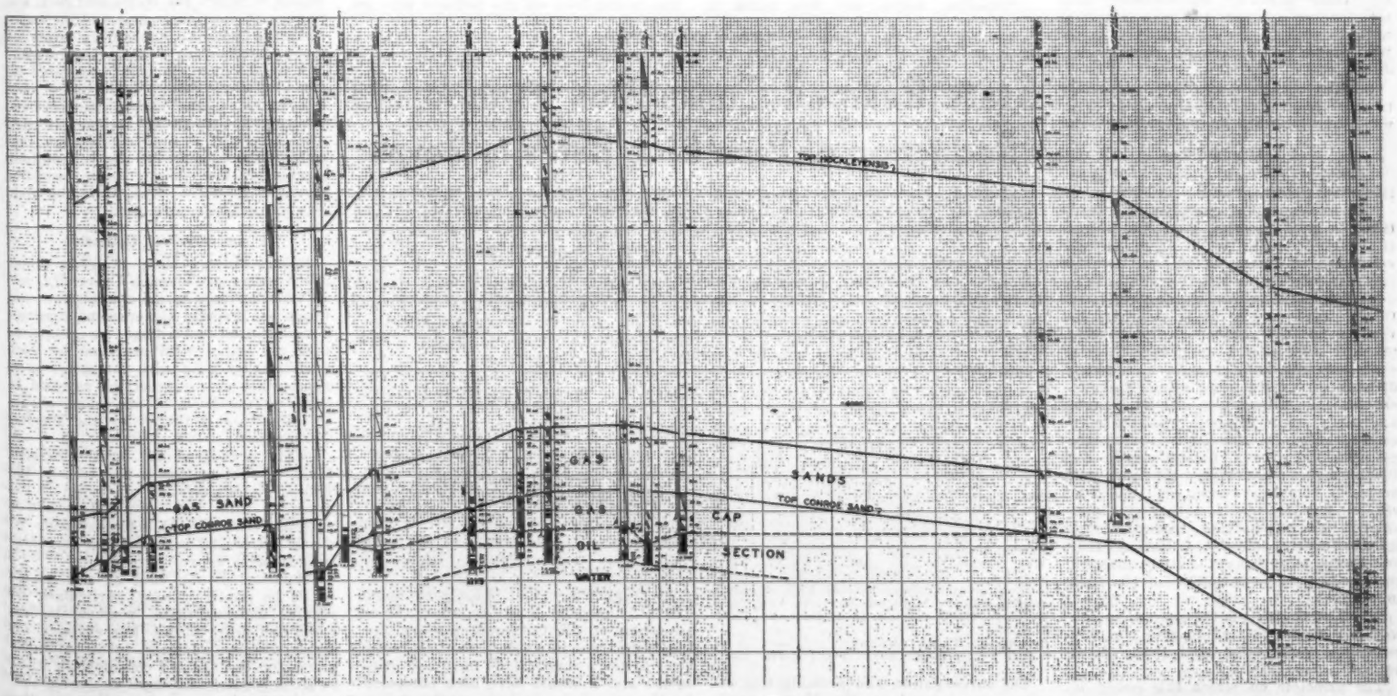

A northwest-southeast cross section of the Conroe Field

Double Taxation on Gasoline May Be Remedied; Legislative Conference Held at Washington

By CHARLES E. KERN
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Feb. 6.—When the American Legislators' Association, composed of members of state legislatures, met here Friday, President Hoover, in opening their session, declared that "the people must have some relief from their tax burden" in view of the present economic situation, and said the discussion of overlapping taxation called forth an opportunity "for a contribution of the first importance to the general welfare."

The oil industry is vitally interested in this effort of state legislatures to create an economic system for the collection of taxes, so that expenses of the Federal and state governments may be met without stifling industry. In a broad sense the purpose of this movement is to have the Federal Government take over the taxation of the nation on essentials, reserving to itself an equitable portion of the taxes collected and allocating to the several states a share of these collections according to their population or some other method.

This plan would make taxes on various sources of income not only equitable but uniform. In the case of the oil industry it would establish a uniform taxation of gasoline in place of the haphazard system varying from 2 to 7 cents a gallon that now prevails, the collection by the Federal Government being more economical and yielding not only some income to the Federal Government but guaranteeing to state governments as adequate income as they now receive. The uniformity would produce as much income as they now receive and be as helpful for their highway improvement and maintenance as under the present system without placing an unbearable and unjust burden as exists under present conditions.

Similar results would be experienced in other lines of tax burdens which hamper other interests and industries.

President's Views

In commenting on present tax conditions the president said:

"The evolution of governmental functions of municipalities, townships, counties and states has led to haphazard development of sources of taxation to support these functions. The result has been a perfect maze of overlapping and conflicting tax systems with inevitable invasions by one authority of tax areas properly belonging to another. If your conference can help to make a scientific division of tax resources among the government authorities you will have made a distinct contribution to the efficiency as well as to the economy of our whole governmental system. I don't expect and I don't believe you expect that you will evolve a complete system at this first session, but the very fact that you have entered upon the problem, that you bring it prominently before the Nation, that you secure that thought shall be directed to it, will be a contribution of the first importance.

"So I wish you all the success in the world. I would be glad to give you any means of co-operation that the Federal authorities can afford."

The principle on which this policy is being upheld has been approved by governmental action. In 1836 Congress provided for the quarterly distribution of the surplus of the Federal Treasury over and above $5,000,000 to the states and in the next year three such payments aggregating $28,000,000 were made from the Federal Treasury to the states.

Another illustration of Federal legislation affecting the finances of the states was enacted in 1924, by providing for a deduction from the amount of the Federal estate tax for state death taxes lawfully imposed and paid up to 25 per cent of the Federal tax. This idea was proposed in the House of Representatives by Representative Freer of Wisconsin and was accepted with little opposition. It was followed two years later by raising the percentage for the deduction to 80 per cent and even in the recent tax legislation of 1932 this deduction from the normal estate tax was preserved to the states. In 1930 with the 80 per cent credit provision fully operative, state receipts from death duties amounted to a total of $180,794,000.

Tax Expert's Opinion

Commenting on these facts, Franklin S. Edmonds, member of the general assembly of Pennsylvania, 1921-1927, chairman of the Pennsylvania tax commission 1924-1927, addressing the convention, said:

"I am bound to state that in my judgment the credit provision has promoted uniformity in dealing with the practical problems of administration."

"During the recent economic depression," said Mr. Edmunds, "a new difficulty has developed. Namely, that if one jurisdiction develops what seems like a productive tax, the other jurisdiction at once invades the field, and the joint pressure of the two jurisdictions may result in injustice, inequity and eventually the elimination of the revenue desired. Tobacco and gasoline are two illustrations of this tendency.

"Gasoline, which was first taxed in Oregon in 1919, was originally regarded as a state tax, and it has developed to such a degree that in 1932 approximately $550,000,000 was raised, with taxes at varying rates from 2 to 7 cents. Then in 1932, the Federal Government entered the field. Obviously, two independent jurisdictions taxing the same product on different bases and by different principles, may justify their actions as constitutional. But they cannot obtain any support on an appeal to common sense.

Effect on Gasoline Demand

"It is noteworthy that with both of these products overtaxation has resulted in diminished consumption. The gasoline consumption in the United States for the first six months of 1932 as compared with the first six months of 1931 indicated that in the states where the rate was 2 cents, there was a 6.7 per cent increase. Where the rate was 3 cents, there was a decrease of 1.3 per cent, and the decrease continued with a higher rate of tax until, in the states that had a 7-cent tax, the decrease was 13.3 per cent.

"Pennsylvania obtained more revenue from gasoline in 1931 from a lower rate than it did in 1930 with a higher rate. The law of diminishing returns applies in taxation as in other fields of economic endeavor, and it is poor policy for any community 'to kill the goose which lays the golden egg.'

"Note some of the difficulties attendant upon the higher rate gasoline taxes. Bootlegging or the sale of untaxed gasoline increases with the higher rate, and the states are obliged to adopt expensive machinery in order to check this abuse. There are between 250 and 275 refineries of gasoline in the United States, operating approximately twice as many plants. The Bureau of Census in June, 1932, estimated that there were 318,000 retailers of gasoline. A Federal tax on gasoline would bear on the refiners who are easy of observation. A state tax on gasoline in most states must bear upon the retailers of whom there are thousands. The one tax is easy to enforce and collect. The other tax is extremely difficult.

"It has been estimated that a uniform 4-cent tax on gasoline of which 3 cents would be returned to the states, would give practically as much revenue to the states and Federal Government as they are procuring at present with a tremendous decline in the costs and annoyance of collection.

"The recent report of the Oil Conservation Board directed attention to the fact that the evasion of the state taxes on gasoline would result in requiring Federal supervision and collection at the refinery.

"The law of diminishing returns has commenced to operate, and now the Federal Government which has contributed by its gasoline tax to a decline in the revenue of the states, finds itself in a similar position with reference to cigarets."

The ideas brought out by Mr. Edmunds were in various degrees approved by the remarks of other members of the legislative conference, and in no instance did any member oppose them. They all regarded favorably the plan for simplifying tax collection on gasoline by having the Federal Government assume that duty, with a credit to each state for gasoline taxes collected by the Federal Government according to population or consumption of gasoline.

Double Taxation

"Within the last year," said Clyde L. King, chairman of the Pennsylvania Public Service Commission, "the Federal Government has put the final touches on double taxation by entering into the field of gasoline taxes theretofore left exclusively to the states. For gasoline taxes had theretofore been about the only single source to which the states had been able to turn to meet their new and increasing functions without duplicating taxes already levied by the Federal Government."

A number of the members approved the idea of a single Federal collection of gasoline taxes by the Federal Government, allotting a portion of the tax to each state according to some agreed plan, thus making the amount of the tax uniform throughout the country while providing adequate return to each state for highway construction and repair.

Favors Federal Collection

Robert Murray Haig, professor of political economy, Columbia University, said all types of taxes in the administration of which the Federal Government possesses a substantial advantage as compared with the states, with provision for such a division of yield with the states as is appropriate to the functions assigned to them on the basis of efficiency, should be levied and collected by the Federal Government.

"This arrangement," said Professor Haig, "would require, I feel certain, the Federal administration of most of the taxes on sales and consumption and I suspect, the Federal administration of death duties and personal and corporate income taxes as well.

"Solution in the case of some taxes would be relatively easy, particularly as regards gasoline taxes, personal income taxes and death duties. For example, all states impose gasoline taxes, approximately on the basis of consumption within their borders and there is considerable complaint about evasion. Suppose the

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State Railroad Commission Announces Reduction of Pipe Line Rates in Texas

AUSTIN, Tex., Feb. 6.—The Texas Railroad Commission Monday issued orders reducing by 25 per cent the deductions in pipe line transportation of oil, amounting to a saving to producers estimated at $750,000 a year on 50-cent oil. It ordered a reduction in pipe line rates from all principal fields to all Gulf points and to Fort Worth and Dallas effective May 1. The newly ordered schedule of allowable deductions for pipe line oil is 1 per cent to Coastal, 1½ per cent to others, the full amount for basic sediment and water as determined to exist and 1 per cent for evaporation and loss.

The new schedule of rates follows:

East Texas	$.30	$.30	$.285
East Central	.30	.30	....
West Central	.425	.425	.35
North Texas	.425	.425	.25
Panhandle	.475	.475	.35
West Texas	.425	.425	.35

First column, Beaumont to Port Arthur; second column, Houston, Baytown and Texas City; third column to Dallas and Fort Worth.

Southwest Texas (Luling, Salt Flat, Darst Creek..	$.275	$.275	....

The investigation and promulgation of rates was ordered by the Forty-second Legislature. The first hearing of the commission was set for December 28, but was recessed to January 30, when testimony was taken and an agreement made to submit the agreed figures, which was done Saturday.

The agreement was submitted by attorneys for the Gulf Pipe Line Co., Stanolind Pipe Line Co., Magnolia Pipe Line Co., Texas Pipe Line Co., Pasotex Pipe Line Co., Waggoner Pipe Line Co., Sun Pipe Line Co., Illinois Pipe Line Co., Shell Pipe Line Co. and Humble Pipe Line Co.

In a brief submitted to the commission, attorneys said that since January 1931, the pipe lines have reduced rates, saving shippers $7,580,144, while the new rates will reduce them still further, to such an extent that $3,847,797 a year will be saved on the basis of the same volume of business as was carried in 1932.

"It is estimated that if the commission had attempted to make an appraisal or valuation of all the properties of pipe line companies in Texas," the brief said, "two or three years would have been consumed and it would have been necessary for the commission to have spent not less than $500,000."

Expansion Joints of Large Diameter Are Made in Plant Shop With Aid of Electric Weld

By GILBERT C. COOMBS
Mexican Petroleum Corp.*

The transmission of viscous liquids at the high temperatures and pressures demanded by modern methods of refining oils has created a demand for pipe line fittings of the highest standards. For this severe service, cast steel valves expansion joints, tees, ells, etc., were once generally accepted as the only available material, until the development of electric arc welding placed in the hands of refinery engineers a manufacturing tool peculiarly suited to their needs.

The engineering department of the refinery with which the writer is associated, appreciating the numerous advantages derived from fabricating the more simple fittings such as ells and tees, decided to apply the new method in a more difficult field, viz., that of making expansion joints. These fittings, so essential to high temperature stills, pipe lines, etc., had hitherto been purchased in cast steel units. This company now makes its own welded steel expansion joints for pipe lines of from 4 to 10 inches diameter, inclusive.

The body of the joint, illustrated here, is fabricated mainly from steel pipe and rolled steel plate. The flanges are cut from the plate with an oxyacetylene torch, a circle-cutting device being used to procure a clean cut. Preparation for welding consists of boring the flanges to size, bevelling both sides of the hole. The ring, part No. 8, required to form the bottom of the stuffing box, is formed from 1-inch square bar steel, being rolled to shape and having the ends welded. The periphery of the ring is machined to insure a good fit in the 12-inch pipe, after which it is welded into position. The 12-inch pipe is swaged at one end to fit the 10-inch pipe, to which it is substantially welded, producing a joint of adequate strength and good appearance.

Material Used

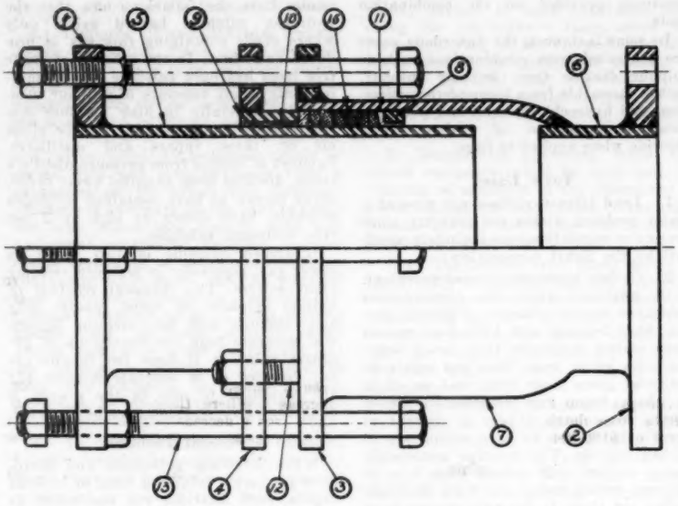
The materials used in the manufacture of the 10-inch extra heavy welded joint, and the prices of same are as follows:

No.	Quantity	Material—
1	87 lbs.	1¼" Steel plate
2	87 lbs.	1¼" Steel plate
3	57 lbs.	1" Steel plate
4	62 lbs.	1" Steel plate
5	18 ins.	10" Extra strong, lap-welded steel pipe
6	4⅝ ins.	10" Extra strong, lap-welded steel pipe
7	13 ins.	12" Extra strong, lap-welded steel pipe
8	3 ft.	1" Square bar steel
9	3 ft.	1"x3" Bar steel
10	14 lbs.	Brass casting
11	8½ lbs.	Brass casting
12	18 ins.	⅞" Dia. cold rolled steel
13	6 ft.	1" Dia. Open hearth steel
14	4	⅞" Semi-fin. hex. nuts
15	12	1" Semi-fin. hex. nuts
16	3¾ lbs.	Garlock No. 244 coil packing
	20 lbs.	Welding rod.

The sleeve is simply a flange cut from steel plate and welded to a section of 10-inch extra heavy pipe. The finished diameter of the sleeve is only slightly smaller than the nominal outside diameter of the pipe, so that the stock removed during the machining operation does not materially affect the strength of the pipe. Since the bursting pressure (Barlow's formula) is 4,650 pounds per square inch, the factor of safety is adequate.

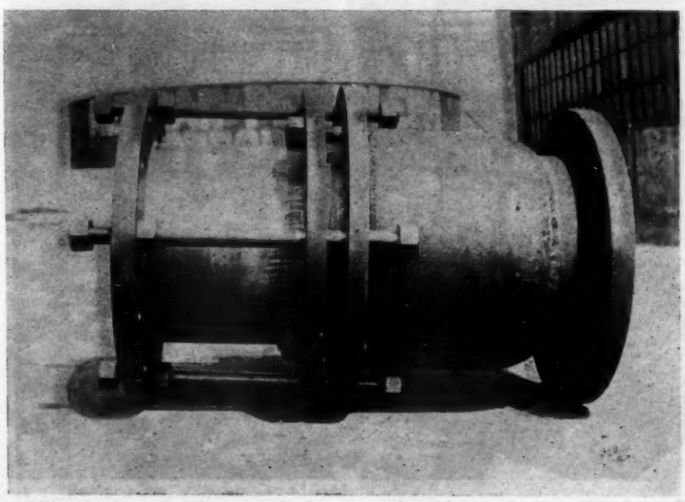
The stuffing box gland is fabricated by welding a flange, made as previously described, to a ring formed from 1-inch by 3-inch bar steel. Since the gland must be machined all over, the ring is rough turned, faced and bevelled before welding to the flange. In this way the amount of welding removed during machining is reduced to a minimum.

It will be noted that in this type of expansion joint, departure has been made from the conventional method of applying the safety bolts, or tie rods. The method employed, as will be seen by reference to the assembly drawing eliminates the extra flange which carries the rods in the cast steel joint. Four tie rods made from open hearth steel are employed, the outer ends being provided with sufficient thread to permit their use as coupling bolts for the sleeve flange. The inner ends of the rods are slightly riveted over to prevent the nuts from working off.



Detailed drawing of expansion joint

Part No.	Part name—	Material—	No. req'd
1.	Sleeve flange	1¼" steel plate	1
2.	Body flange—outer	1¼" steel plate	1
3.	Body flange—inner	1" steel plate	1
4.	Gland flange	1" steel plate	1
5.	Sleeve	10" extra heavy pipe	1
6.	Body nipple	10" extra heavy pipe	1
7.	Body	12" extra heavy pipe	1
8.	Packing support ring	⅞" square steel	1
9.	Gland ring	2¾"x1" bar steel	1
10.	Gland bushing	Cast brass	1
11.	Stuffing box bushing	Cast brass	1
12.	Gland studs	⅞" dia. C. R. steel	4
13.	Safety studs	1" dia. O. H. steel	4
14.	Gland stud nuts	⅞" semifin. hex. nuts	4
15.	Safety stud nuts	1" semifin. hex. nuts	12
16.	Packing	To suit service—size ⅝"	..



Assembled expansion joint made in refinery shop with electric arc weld

Routing of Material

The routing of this material through the shops, and the detailed cost of each operation is shown in the following:

Operation No. 1. Station, steel yard: Lay out four flanges, parts Nos. 1, 2, 3 and 4.

Operation No. 2. Station, steel yard: Cut out four flanges, parts Nos. 1, 2, 3 and 4. Tools, acetylene torch and circle cutting device.

Operation No. 3. Station, machine shop: Chip flashings from four flanges, parts Nos. 1, 2, 3 and 4.

Operation No. 4. Station, engine lathe: Bore four flanges, parts Nos. 1, 2, 3 and 4, and bevel for welding.

Operation No. 5. Station, 12-inch pipe threading machine: Cut to length two pieces 10-inch extra strong pipe for parts Nos. 5 and 6, and one piece 12-inch extra strong pipe for part No. 7.

Operation No. 6. Station, power hack saw: Cut to length the following: 1 piece 1-inch square bar steel for part No. 8; 1 piece 1"x3" bar steel for part No. 9; 4 pieces, seven-eighth-inch diameter cold rolled steel for part No. 12; 4 pieces, 1-inch diameter open hearth steel for part No. 13.

Operation No. 7. Station, blacksmith shop: Form parts Nos. 8 and 9.

Operation No. 8. Station, welding shop: Weld ends, parts Nos. 8 and 9; tools used, portable arc welder.

Operation No. 9. Station, engine lathe: Turn O.D. part No. 8; rough turn and face one end, part No. 9.

Operation No. 10. Station, welding shop: Assemble and weld, parts Nos. 1 and 5; Nos. 4 and 9; Nos. 7 and 8; tools used, portable arc welder.

Operation No. 11. Station, blacksmith shop: Swage end of part No. 7 to fit part No. 6.

Operation No. 12. Station, welding shop: Assemble, align and weld parts Nos. 3, 7; 6 and 2; tools used, portable arc welder.

Operation No. 13. Station, engine lathe: Turn sleeve, part No. 5, turn and face flange, part No. 1.

Operation No. 14. Station, engine lthe: Machine all over, gland assembly, parts Nos. 4 and 9.

Operation No. 15. Station, engine lathe: Machine all over, cast brass bushing, part No. 10.

Operation No. 16. Station, engine lathe: Machine all over, cast brass bushing, part No. 11.

Operation No. 17. Station, engine lathe: Machine body, parts Nos. 2, 3, 6, 7 and 8.

Operation No. 18. Station, hydraulic press: Assemble stuffing box and gland bushings, parts Nos. 10 and 11.

Operation No. 19. Station, radial drill: Drill flanges, parts Nos. 1 and 2; drill gland, No. 4; drill and tap flange No. 3.

Operation No. 20. Station, bolt threading machine: Thread parts No. 12 and No. 13 (16 ends).

Operation No. 21. Station, machine shop: Assemble complete, pack stuffing box and test for leaks.

These expansion joints have been used in pipe lines handling oil at pressures up to 200 pounds per square inch and temperatures as high as 800° F. a large number of installations have proved them to be highly satisfactory in every way.

*Paper entered in Second Lincoln Arc Welding Prize Contest sponsored by Lincoln Electric Co.

Suggested Means for Detecting Harmful Gases and Protecting Workers in Oil Industry

By J. L. RISINGER
Magnolia Petroleum Co. and Magnolia Pipe Line Co.*

The cause of asphyxiation is presence in varying concentrations in air of toxic, irritating and asphyxiating gases. The cause of many fires and explosions is the presence of these same gases in a high concentration. The asphyxiation percentage of the majority of irritant and toxic gases begins below the lower limit of the range of explosibility, while the asphyxiation percentage of a majority of the simple asphyxiants begins above the lower limit of the explosive range. Asphyxiation would therefore indicate in many instances that the fire and explosion hazards also existed, and fire and explosion would indicate likewise that the asphyxiation hazard was present.

From a review of 101 fatalities in the oil industry during 1931 by the American Petroleum Institute, 6 of these were caused from asphyxiation and 32 from fire and explosion. No doubt but that the asphyxiation hazard was present but overcome, or not entered, in many of the fire and explosion cases, and that the hazards of fire and explosion were present in some of the six asphyxiation cases.

Since the asphyxiation problem, as covered in this discourse, resolves itself down to the presence of and dealing with gases in operations within the industry, a study of these gases present, their sources, explosive, asphyxiating, toxic and irritating properties, physiological effects, means of their detection, their elimination and the protection against them is very essential.

Explains Summary

The accompanying summary under the heading, "Properties of Gases," is offered as a reference in this study. For convenience we might sum up the asphyxiation problem in the industry as follows:

1. The accumulation of asphyxiating gases in enclosures, such as storage tanks, pits, pump houses, sewers and other such locations, and in sufficient concentration to create oxygen deficiency. By asphyxiants, we refer to those gases the principal physiological effect of which is the producing of an oxygen deficiency. Since the solution of the asphyxiation problem, in the dealing with these gases is much more simple than in dealing with irritant and toxic gases, and the hazards are less recurrent, and their detection, elimination, and the protection against them is similar to that of the irritant and toxic gases, we will deal principally with the latter two.

2. The presence of toxic or irritating gases in enclosures or in open spaces in dangerous concentration.

(a) By irritants is meant those gases the physiological effect of which on the human body is principally that produced by irritation of the eyes, breathing tracts and respiratory system in general.

(b) By toxic gases we indicate those gases the principal ill effects of which are that of poisoning or suffocation.

The irritants, pentane, hexane, heptane, octane, nonane and decane, are seldom found singly, and may carry a toxicity of hydrogen sulphide or after incomplete combustion, carbon monoxide. Present with the toxic gas, hydrogen sulphide is occasionally found in petroleum vapors, and in the burning of hydrogen sulphide gas we obtain sulphur dioxide. The problem would not be complex if each particular gas could be handled alone. This cannot be done, however, and combinations must be anticipated in figuring ranges of explosion, asphyxiation, irritation and toxicity, and elimination and protective measures provided on the combination basis.

In some instances, the hazardous gases are generated from combinations such as sulphur dioxide from burning sulphur, carbon monoxide from incomplete combustion, and hydrochloric acid, and phosgene from decomposition of carbon tetrachloride when applied to fires.

Toxic Gases

1. Lead tetraethyl does not present a major problem within the industry since protective regulations are definitely specified by the Ethyl corporation;

2. Carbon monoxide is most prevalent. It is produced when any carbonaceous substance burns without sufficient oxygen. Slow burning with little heat creates more carbon monoxide than quick burning with great heat. This gas exists in artificial gases made from coal or oil or in those from any combustion forces where not enough oxygen is present to permit the carbon to burn completely to carbon dioxide. The average automobile engine exhaust will contain from 5 to 10 per cent carbon monoxide. With the choke pulled out there is not only danger from carbon monoxide but from fire and explosion from unburned hydrocarbons.

3. Hydrogen sulphide presents a problem of sufficient importance to be considered the leading gas in the solution of the asphyxiation problem in the oil industry. As time will not permit further details on each of the gases present in the industry, further discussion will be limited to hydrogen sulphide, particularly and principally to operations in refineries.

Fortunately, most of the producing fields of the United States are free from hydrogen sulphide. However, in these fields where this gas comes from the wells with the oil and gas, the hazard in the vicinity of these wells and at the storage of this oil or its products is so serious as to cause the petroleum industry much concern. Furthermore, the crude from these fields is shipped and refined over a large part of the country and the gas hazard is present wherever this oil is shipped. A great many companies have the fallacious idea that the hydrogen sulphide hazard exists only where crude containing this gas is produced or refined. In the refining of crude free from hydrogen sulphide and containing only small amounts of sulphur compounds, especially in high pressure distillation, hydrogen sulphide will be given off by these vapors and distillates. Samples of vapors from pressure distillate tanks, distilled from so-called sweet crude, never known to have contained hydrogen sulphide, have shown as high as 2 per cent hydrogen sulphide.

Hydrogen sulphide is also found as sewer gas, especially in refinery treating plant sewers. The chemical reaction of sodium sulphide or spent caustic soda and sulphuric acid, both treating liquors, will generate high concentrations of hydrogen sulphide. If these two liquors are not disposed of in separate systems but are permitted to mix in the sewers, a dangerous gas condition may be expected.

Special Problems

When handling petroleum and petroleum products containing toxic or irritant vapors, such locations and operations as the following call for special attention:

1. In production, gas leaks around casinghead and other connections, gauging tanks, cleaning tanks, in cellars, on runways, etc.

2. Pipe line, gauging tanks, cleaning tanks, leaks and breaks on lines, leaks in manifolds, leaks in pump houses, loading tank cars, cleaning and refilling tank cars, in pits around pump houses, etc.

3. Refineries and gasoline plants, ship tanks, crude storage tanks, running pans, untreated distillate tanks, light oil treating plants, receiving houses, pump houses, tank pits, sewers, pipe trenches, cellars, beneath condenser boxes, between or under processing units or agitator foundations, on separators, working on operating units, pumps, line, etc., and other such locations and operations conducive to accumulation of these gases.

The effect of breathing hydrogen sulphide gas is quite widely known. It is highly toxic. Breathing of this gas deadens the olfactory nerves, hence its characteristic rotten odor is not detectable in dangerous concentrations. The commonly accepted theory regarding the physiological action is that it causes a paralysis of the respiratory nerves, as a result of which breathing stops, and the injured persons die from oxygen starvation. As little as 0.06 to 0.10 per cent will have this effect. In the lower concentrations, or what is termed the subacute stages, as little as 0.01 per cent, it has an irritating effect upon the eyes, throat, etc.

In addition to laboratory analysis, hydrogen sulphide gas can be detected by the use of lead acetate paper or with palladium chloride in an all service gas indicator, or by a portable apparatus for titrating with iodine solution.

A test for this gas by use of lead acetate or palladium chloride does not definitely determine the quantity of the gas present, yet these tests have proven very practical. In some refineries, a written test slip is given to the foreman of the department that is going to do the work, showing whether the enclosure or equipment is safe for men or hot work and recommendations of what safety precautions are to be observed, also the type of safety equipment to be used, if any.

Men breaking into lines, repairing pumps, etc., should obtain from pumper information as to kind of stock equipment handled. Tests should be made where there is the least possibility of H_2S gas being present. For maintenance all enclosures, such as stills, towers, condenser boxes, under receiving houses, pits, separators, sewers, tanks, or any place that there is a possibility of gas being present, should be tested before workmen are allowed to enter.

Daily Reports

To keep in touch with the different equipment and what it is running a report should be received daily of what is being run, the run-down tanks and of the other tanks that are being used before the cuts are treated. This equipment and tanks can then be marked in red on a general map of the refinery and the map kept up to date by checking it daily.

It is important in the detection of hydrogen sulphide to know what distillates coming from sour crude contain the greater percentage of this gas, in order that protective measures may be used in the handling of these distillates through lines, pumps, tanks and further processing, and until these toxic vapors are treated out. This can be determined by test runs on sour crudes either in small equipment such as is used in experimental laboratories or in the regular batch type stills.

For convenience we might list the solution of this problem of asphyxiation from toxic and irritant gases under two general headings, elimination of the hazards and protection against them. Of these, the first is, in our opinion, to be preferred, where it is at all possible and within a reasonable cost.

Elimination of these hazardous gases may be accomplished in many ways, such as:

1. Ventilation; this is also an effective means of eliminating asphyxiation from simple asphyxiants, and the prevention of fires and explosions. It can be accomplished—by proper construction of buildings, such as pump houses, motor rooms, receiving houses, etc.; the proper spacing of processing units and the elimination of other such enclosures where gases might accumulate; and by effective means of mechanical ventilation for existing enclosures, such as receiving houses, pump houses, cellars, etc.

The hazards can be greatly reduced by

Open building constructed to house explosion proof pumps in handling vapors in order to promote safety

*Presented before the petroleum section at the National Safety Congress, Washington, D. C.

both means of ventilation, in the cleaning of crude storage tanks, untreated distillate tanks, etc.

2. The operation of equipment so as to eliminate the necessity of employes entering enclosures or otherwise coming into contact with gases; it is too often taken for granted that it is necessary for employes to enter dangerous areas for the performance of certain duties at special times, when as a matter of fact these duties could be performed when the hazard is not present. Processing equipment is often so spaced that maintenance work cannot be done safely between units while such units are in operation. This work should be planned for times when the units are down for cleaning or repairs, or otherwise not being operated.

Repairs to Pump

This is also true of repairs to pumps, lines and other equipment not handling poisonous stocks but located within dangerous areas around units handling these stocks. Then it has been found that many samples are taken and weighed, and tanks gauged, results of which are not necessary in directing the correct course in processing. Small stock tanks can usually be sufficiently cleaned without entering them, by raking sediment out of manhole or through opening provided by removing a sheet. Ethyl Gasoline storage tanks can often be cleaned by steam and water or other methods without going into them.

A report of all pipe lines entering a refinery should be checked daily and all tanks into which poison crudes are being pumped immediately marked with a distinctive sign attached to a gate on the stairway prohibiting anyone from going on the tank without wearing an effective gas mask.

The crude should then be traced to the equipment where it will be run. This processing equipment should be marked with warning signs as a restricted area and signs placed on all stairways leading to the top of batteries and to receiving houses.

All run-down tanks and transfer tanks should be marked with the warning signs on the stairs and the water draw-off valve in the same manner as the crude tanks. The oil should then be followed on through the different operations, and lines, pumps, tanks, etc., marked until no trace of H_2S is evident. No one should be permitted to enter the danger zone or work on any equipment therein except by special authority of the foreman in charge.

3. Trapping off and otherwise keeping liquids containing these gases enclosed. All run-down lines from receiving houses should be trapped; lines leading from weighing pans should have valves below the pans, and after oil is poured into pans it should be washed into the line and valves closed. All lookboxes should be sealed tight and samples taken from a connection on the run-in line. Constant vigilance is necessary on the part of every one who comes into contact with any equipment, containing, handling or processing petroleum or petroleum distillates containing toxic gases and the slightest leak reported immediately. Special precautions must be taken to keep packing glands tight, lookboxes securely closed (using gaskets to make a gas-tight fit) and leakage or spilling of oil should be kept to a minimum. In case of a spill, oil should be washed into sewer and separator man notified.

4. Vacuum control of toxic gases. A vacuum should be maintained on run-down lines and lookboxes, and vapors not condensed in cooling coils pulled to absorption plants or to the location where they are to be burned as fuel. This gas and the liquids absorbed, however, should be followed and protection provided.

Important among the essentials in protection against asphyxiation are:

1. The providing of equipment to meet specific requirements of protection against each gas. This has been briefly outlined in the chart on petroleum gases. Combinations of these gases can be worked out on the basis of protection against each gas present.

2. Training employes in how to use equipment. The use of protective devices that do not protect or the use of them in such manner that they do not completely protect is more hazardous than doing the job without them, since employes believing themselves protected take fewer precautions against the hazards. It is very essential that supervisors and workmen be thoroughly trained in the use of equipment before being permitted to use it.

3. Regulations governing when and where equipment shall be used and the training of employes in the observance of these regulations. In addition to the regulations already mentioned the following should be observed:

(a) The hazards from gases should be specifically designated and zones defined.

(b) Where the danger is sufficient to require the use of a gas mask, two men should be present, one should remain outside the danger area with gas mask in the alert position ready to render aid if necessary.

(c) All employes should be taught never to stand on the side of an opening where escaping gas will blow toward them and never to enter a tank or other enclosed place where from leaks, breaks, or otherwise this gas has accumulated, without protection.

(d) Wherever possible, dangerous crudes or distillates should by-pass pump houses where pump men are in constant attendance. Otherwise the same regulations would apply as in receiving houses or other enclosures.

(e) Close watch should be kept on the entire gas system, and any leak no matter how small, should be stopped as soon as possible.

(f) Gas masks:

The fresh air hose mask, equipped with life line is recommended for use in confined areas.

Canister gas masks are recommended for use in atmospheres which contain sufficient oxygen to sustain life, and where the percentage of combined gases does not exceed 2 per cent by volume.

Resuscitation

4. Resuscitation; the extensive training in resuscitation by artificial respiration is no doubt responsible for the small number of fatalities in the oil industry during 1931 from asphyxiation. During 1930, one of the larger petroleum companies had five employes overcome by gas. During 1931, this same company had one and to date in 1932, none. Resuscitation by artificial respiration was 100 per cent successful in the six cases mentioned. All were revived and not one of them lost time beyond the shift during which the accident occurred.

All employes of the petroleum industry should be trained in the Shafer-Prone-Pressure method of artificial respiration.

In conclusion, the measures adopted for the solution of this as all other problems in accident prevention should be a regular part of operations and equipment for protection should be a part of operating equipment, without which operations should cease.

Properties of Asphyxiating Vapors, Toxic Gases and Irritating Gases Commonly Present in Refineries

ASPHYXIATING GASES AND VAPORS

Oxygen—Source: A constituent of normal atmosphere; used in gas welding and burning and in oxygen inhalators. Explosibility: Not explosive, but supports combustion. Physiological effects: Essential to life; a decrease below 16.5 per cent will cause distress, 7 per cent will cause unconsciousness and death. Detection: Laboratory analysis; Orsat apparatus; safety lamp flame is extinguished at approximately 16.5 per cent. Protection: Necessary only when oxygen is deficient; hose mask; oxygen breathing apparatus.

Nitrogen—Source: Constituent of normal atmosphere. Explosibility: Inert. Physiological effects: No effect except in sufficient quantity to cause oxygen deficiency. Detection: Laboratory analysis. Protection: Hose mask; oxygen breathing apparatus.

Methane—Source: See footnote. Explosibility: Explosive in range 5.3 to 13.87 per cent in air. Physiological effects: Same as nitrogen. Detection: Laboratory analysis; combustible gas indicators. Protection: Same as nitrogen.

Ethane—Source: See footnote. Explosibility: Range 3.22 to 12.5 per cent in air. Physiological effects: Same as methane. Detection: Same as methane. Protection: Same as methane.

Propane—Source: See footnote. Explosibility: Range 2.4 to 9.5 per cent in air. Physiological effects: No effect except in causing oxygen deficiency; anaesthetic when mixed with oxygen. Detection: Same as methane. Protection: Same as methane.

Butane—Source: See footnote. Explosibility: Range 1.9 to 8.4 per cent in air. Physiological effects: Same as propane. Detection: Same as methane. Protection: Same as methane.

Hydrogen—Source: Used in welding and lead burning; given off in charging of storage batteries. Explosibility: Range 4.1 to 74 per cent in air. Physiological effects: Same as methane. Detection: Laboratory analysis. Protection: Same as methane.

Carbon Dioxide—Source: Product of complete combustion; used as fire fighting agent; used in inhalators as aid in resuscitation. Explosibility: Nonexplosive. Physiological effects: Respiratory stimulant; 1.4 per cent causes 50 per cent increase in lung ventilation; 3 to 4 per cent causes distress and 10 per cent stupefaction. Detection: Laboratory analysis; Orsat apparatus. Protection: Canister gas mask; using soda lime as absorbent; hose mask; oxygen breathing apparatus.

TOXIC GASES AND VAPORS

Lead Tetraethyl—Source: Constituent of "Ethyl fluid." Explosibility: Explosive. Physiological effects: Continued exposure will result in acute lead poisoning. Protection: Canister mask, using activated charcoal as absorbent

Carbon Monoxide—Source: Product of incomplete combustion; given off from fires, gasoline engine exhaust, etc. Explosibility: Explosive in range of 12.5 to 74.2 per cent in air. Physiological effects: 25 per cent will cause death in a short time. Detection: Laboratory analysis; iodine pentoxide indicator; pyrotannic acid indicator, and all service indicator. Protection: Canister mask using all service canister only; hose mask; oxygen breathing apparatus.

Hydrogen Sulphide—Source: Given off in vapors of sour crude or its untreated products; found as sewer gas, especially in some treating plants. Explosibility: Explosive in range of 5.9 to 27.2 per cent in air. Physiological effects: Concentration of .005 per cent will cause eye irritation, from .06 to .10 per cent will cause paralysis of the respiratory nerves. Detection: For presence, discoloration of lead acetate paper, and all service indicator; for quantity, titration with iodine solution; laboratory analysis. Protection: Canister gas mask, using soda lime as absorbent; hose mask; oxygen breathing apparatus.

IRRITATING GASES AND VAPORS

Pentane—Source: See footnote. Explosibility: Range 1.45 to 7.5 per cent in air. Physiological effects: Anaesthetic conclusive and irritating; concentration of .03 per cent gasoline vapor can be detected by odor; 1.1 per cent is dangerous for short exposure and 2.4 per cent is fatal in short period. Detection: Laboratory analysis and combustible gas indicator. Protection: Canister gas mask using activated charcoal as absorbent; for concentration causing oxygen deficiency use hose mask or oxygen breathing apparatus.

Hexane—Source: See footnote. Explosibility: Range 1.3 to 5.5 per cent in air. Physiological effects: Same as pentane. Detection: Same as pentane. Protection: Same as pentane.

Heptane—Source: See footnote. Explosibility: Range 1.1 to 5.0 per cent in air. Physiological effects: Same as pentane. Detection: Same as pentane. Protection: Same as pentane.

Heptane—Source: See footnote. Explosibility: Range 1.1 to 5.0 per cent in air. Physiological effects: Same as pentane. Detection: Same as pentane. Protection: Same as pentane.

Octane—Source: See footnote. Explosibility: Range 1 to 4.9 per cent in air. Physiological effects: Same as pentane. Detection: Same as pentane. Protection: Same as pentane.

Nonane—Source: See footnote. Explosibility: Range .83 to 4.8 per cent in air. Physiological effects: Same as pentane. Detection: Same as pentane. Protection: Same as pentane.

Decane—Source: See footnote. Explosibility: Range .78 to 4.7 per cent in air. Physiological effects: Same as pentane. Detection: Same as pentane. Protection: Same as pentane.

Ammonia—Source: Used as a refrigerant and in the treating of petroleum vapors for sulphur. Explosibility: Explosive in range of 16 to 27 per cent in air. Physiological effects: Irritating; least detectable odor .0053 per cent .57 per cent fatal for short exposure. Detection: Laboratory analysis and familiar odor. Protection: Canister mask using copper sulphate impregnated upon activated charcoal; hose mask; oxygen breathing apparatus.

Chlorine—Source: Used in treatment of water. Explosibility: Nonexplosive, but supports combustion. Physiological effects: Irritating; least detectable odor .0004 to .1 per cent fatal for short exposure. Detection: Laboratory analysis. Protection: Canister gas mask using soda lime as absorbent.

Note—Gases here are classed as asphyxiant, toxic and irritant, according to their principal physiological effect. The hydrocarbons, methane, ethane, propane, butane, pentane, hexane, heptane, octane, nonane and decane are found in the vapors of petroleum and petroleum products and in natural gas. They are rarely found singly. Natural gas is principally methane with some hydrogen and some of the heavier hydrocarbons and sometimes carbon dioxide is present. For the purpose of estimating the explosibility of the vapors of the various petroleum products, we can strike an average between the lighter and heavier hydrocarbons. On this basis, crude oil vapors can be estimated as approximately butane; gasoline vapors as pentane; naphtha as heptane; and fuel oil and kerosene as octane, nonane and decane. The liquids giving off the heavier hydrocarbons, such as fuel oil and kerosene are usually not sufficiently volatile to give off a toxic concentration. The explosibility and physiological effects of gasoline are shown under "pentane" which is approximately an average between the lighter and heavier hydrocarbons present.

Civil Groups Must Pay Federal Tax on Gasoline Purchased

Sales of gasolines in certain areas not governed by an essential government function, within the meaning of the Bureau of Internal Revenue regulations, are not exempt from the gasoline tax according to a decision by the bureau. This decision was given in response to an inquiry by the National Petroleum Association. The bureau states:

"Reference is made to your letter of January 13, 1932, in which is quoted a letter from a member of the National Petroleum Association with regard to the status of the Archeological and Historical Society sponsored by the State of Ohio in its activities in maintaining state historical parks.

"You are advised that the maintenance of parks by a state, county, or municipality, is not an essential governmental function within the meaning of the Bureau of Internal Revenue regulations. It is held that such activities are proprietary in nature.

"In view of the fact that the maintenance of parks by a sovereign power is not an essential governmental function, sales of gasoline by the importer thereof or by any producer of gasoline to a state or political subdivision thereof for use in such activities, are subject to the tax imposed under Section 617 of the Revenue Act of 1932 regardless of the fact that payment is made from public funds."

Another decision relates to sales of lubricating oil to irrigation districts as follows:

"It is contended that irrigation districts are political subdivisions and as such are exempt from taxes imposed on sales of lubricating oil by Section 601; on sales of tires and inner tubes by Section 602; on sales of gasoline by Section 617; on telegraph and telephone services by Section 701 (a) 1; and on checks by Section 751 of the Revenue Act of 1932. Even if irrigation districts could properly be considered as political subdivisions they would be subject to tax because their functions are proprietary rather than essentially governmental in their character. Therefore, transactions with or by such districts are not exempt from the taxes imposed by those sections of the law."

Name Topical Committee on Standardizing Records

The topical committee on standardization of production records of the American Petroleum Institute has been appointed by Charles F. Roeser, chairman of the general committee of the Division of Production. The committee is representative of the California, district, the Eastern district, the Mid-Continent district and the Southwest district, with J. French Robinson of the Lycoming Producing Corp., Wellsboro, Pa., as national chairman. In the announcement of appointments Mr. Roeser called attention to the fact that consideration of nomenclature formerly assigned to this committee has been delegated to another group.

Members of the committee for the several districts are as follows:

California district: P. C. McConnell, chairman, Standard Oil Co. of California, Los Angeles; R. H. Boyd, Richfield Oil Co., Los Angeles; H. A. Brett, Union Oil Co. of California, Santa Fe Springs, Calif.; and J. B. Case, oil and gas supervisor, Los Angeles.

Eastern district: J. G. Montgomery, Jr., chairman, United Natural Gas Co., Oil City, Pa.; C. P. Balsiger, South Penn Oil Co., Bradford, Pa.; Kenneth Cottingham, Columbia Engineering & Management Corp., Columbus; T. J. Kirwin, United Fuel Gas Co., Charleston, W. Va.; H. H. Phillips, T. W. Phillips Gas & Oil Co., Butler, Pa.; and J. J. Schmidt, East Ohio Gas Co., Cleveland, Ohio.

Mid-Continent district: F. A. Lichtenheld, chairman, Indian Territory Illuminating Oil Co., Bartlesville; T. A. Hall, Tide Water Oil Co., Tulsa; and G. E. Longfellow, Clint-Moore estate, Shidler, Okla.

Southwestern district: Harold J. Vance, chairman, Vance & Fagin, Kilgore; David Donahue, Tidal Oil Co., Fort Worth; P. S. Haury, Simms Oil Co., Smackover, Ark.; W. C. Shutts, Humble Oil & Refining Co., Houston; and Ed Warren, Continental Oil Co., Borger, Tex.

Late Fields

SOUTHWEST TEXAS

SAN ANTONIO, Tex., Feb. 7.—Humble Oil & Refining Co.'s No. 1 Annie Haessler in Bastrop County, wildcat, topped Serpentine at 2,468 feet and with total depth 2,557 feet on drill stem test Sunday night flowed nine and one-half minutes and was then shut in.

KANSAS

The Eldorado Refining Co. of Eldorado, Kans., announced that effective February 2 it would pay for crude oil in the Hollow Pool, in Harvey County, 42½ cents per barrel, less 7½ cents gathering charges, making the price 35 cents per barrel to the producer. The oil in the pool is about 45 degrees gravity.

Phillips Petroleum Co.'s No. 1 Wiebe, in Section 30-23-2, Harvey County wildcat, has resumed drilling operations. The rig was destroyed by fire about two weeks ago and it has been rebuilt and drilling was resumed at 2,700 feet. It is being drilled on a large block the company owns in the vicinity.

Olson Oil Co. and others' No. 1, C SW SW Section 7-14-10w, Ellsworth County, found water in the Silicious lime at 3,178-3,253 feet. The water rose 1,400 feet in the hole. The well was shut down.

Lee and others' No. 1 Wall, in Section 4-22-3w, Harvey County, an extension well in the Mabee Pool, swabbed 110 bbls. in one hour and 139 bbls. the next hour from the Hunton lime, and it was then shut in, as the owners were putting the well on the pump. The Hunton lime was found at 3,495-3,507 feet.

Sinclair Prairie Oil Co.'s No. 1 in the C SW SW Section 1-17-10w, in the Stratman Pool, in Ellsworth County, made 95 bbls. of oil in 10 hours from the Siliceous lime at 3,245-71 feet.

WEST TEXAS

FORT WORTH, Tex., Feb. 7.—Landreth Production Co.'s No. 1 Holt, Section 15, Block 43, Township 1n, T.&P. Survey, northern Ector County, plugged back from a total depth of 4,617 feet to 4,330 feet, and shot with 120 quarts from 4,305-27 feet, made a head after bridge was knocked out but oil was lost. The next head of 27 bbls. was made in three hours, making it appear as good for 200 bbls. per day and extending production 2½ miles to the northwest of the Cowden producers.

OKLAHOMA

Prairie Investment Co. has made a location for No. 1 Maple, SE cor. Section 20-27-4, Kay County. It is a wildcat on a 3,000-acre block of leases in the Kaw Indian country. This test is only two locations from another test that was drilled in December, 1925, which found the Burbank sand at 3,205 feet, where it made around 25 bbls. a day, and after drilling the test to the Wilcox sand, where it found a hole full of water, it was plugged to the top of the ground. Companies holding leases in the vicinity include the Sinclair Prairie Oil Co., Mid-Continent Petroleum Corp., The Texas Company and others.

The production in the southern part of the St. Louis Pool, in Pottawatomie County, was extended a location by Reynolds Drilling Co.'s No. 1 Harden, SE cor. Section 29-7-4. It swabbed 120 bbls. of oil in two hours from Simpson sand at a total depth of 4,261 feet.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Kolb, C NE NW Section 33-20-2w, Noble County, which extended production in the Wentz Pool 2 miles to the southeast, was shot with 10 quarts Friday, February 3, and on Saturday it made 629 bbls. of oil, and the next day's gauge was 671 bbls., from a total depth of 5,118 feet, in the second Wilcox sand.

Denver Producing & Refining Co.'s No. 1 Noe, NW cor. SW SW Section 34-10-10w, Caddo County wildcat, was drilling around 4,250 feet.

On the first day's potential gauge of the 24 Booch sand wells in the West Holdenville Pool, in Hughes County, on February 2, these wells, which are located in Sections 9, 10, 15 and 16, in Township 7-8, gauged 3,249 bbls. on a four-hour potential test. On this basis these wells would make on a 24-hour potential test 19,495 bbls.

Oklahoma Supreme Court Restricts Military Rule

The Supreme Court of Oklahoma on Tuesday remanded to the District Court for trial the case of the Russell Petroleum Co., involving the question of military rule in the Oklahoma City Field.

The Russell Petroleum Co. entered suit in the District Court to enjoin the Corporation Commission of Oklahoma from enforcing its shutdown order against wells owned by the company. These wells were shut in and kept from producing under orders of Lieut. Col. Cicero I. Murray, in charge of military enforcement in the Oklahoma City Field. The District Court had held it did not have jurisdiction in the case. The decision of the Supreme Court is to the effect the District Court does have jurisdiction to "enjoin the militia from unlawfully interfering with the property of the plaintiff."

Not Due Process of Law

In discussing orders issued by Gov. William H. Murray of Oklahoma, the Supreme Court held:

"The executive orders of the governor, shown by the record in this case, calling out the militia for the purpose of enforcing the laws of the state, do not constitute due process of law or authorize the militia to deprive an owner of his property without due process of law.

"Where there is no adequate remedy at law, equity will afford relief to an owner of property to prevent the militia from unlawfully interfering therewith, and the district courts of the state are authorized to grant such relief."

Justice Busby, in a special part of the decision and opinion handed down by the Supreme Court, stated:

"The chief executive has authority to call out the militia to aid in execution of laws of the state. He has no authority to legislate or prescribe rules or penalties of his own with reference to property rights and if he makes such rules and regulations they are subject to review and to injunctive processes of a court of equity.

"The chief executive has no authority to impose charges upon operators in an oil field on a per barrel basis, to enforce proration laws, or to shut down wells by executive order for a failure to pay said charges by way of penalties; the chief executive may use the militia in proper cases to aid in the enforcement of the orders and judgments of a court of equity; jurisdiction of court of equity may be invoked in aid of enforcement of the corporation commission and injunction relief in a proper case may be supplanted by a receivership. As a prerequisite to equitable relief plaintiff must come into court with clean hands or must purge itself of previous inequitable conduct and must offer to do equity."

The action of the Supreme Court is interpreted to mean the militia cannot shut down wells in the Oklahoma City Field until after the corporation commission has held a hearing on the question of overproduction of wells and has established the fact such wells are being produced in excess of allowables. It is also taken to mean it is illegal for the militia to take over or patrol properties of operators until after such hearing has been held and an actual finding of overproduction is made.

Raymond S. Lord, of Hope Engineering Co., Dies at Mt. Vernon, O.

Raymond S. Lord, of Mount Vernon, Ohio, president of Hope Engineering Co., died at Mount Vernon Hospital, Sunday afternoon, February 5, after an operation for appendicitis. He was born at Conneautville, Pa., April 6, 1873. Funeral services were held at Mount Vernon, Tuesday afternoon.

In 1906 after an extended service with the Philadelphia Co. in Pittsburgh, Pa., Mr. Lord, with others, formed the Hope Engineering & Supply Co., a pioneer engineering and construction company in the natural gas industry. In 1915 Mr. Lord moved to Mount Vernon as president of the Hope Forge & Machine Co., a subsidiary. In 1922 he was made president of the parent company which position he held at the time of his death.

Mr. Lord was a lifelong member of the Methodist Episcopal Church and a trustee of Ohio Wesleyan University. He was a member of all Masonic bodies and active in Y.M.C.A. work in Mount Vernon. He was also president of the Lord Kelly Auto Co. and the Northwest Stellarne Co. of Mount Vernon.

Lost Aviator Found by Aid of Oil Field Maps

When Ray Fuller, 37 years old, San Antonio, Tex., failed to complete his night air mail flight from San Angelo on the morning of January 20, apprehension was felt by the airport officials because they knew that he had been lost in a heavy fog during the early morning hours, and he had reported by radio from the vicinity of Boerne that he had again got his bearings and was headed for his destination.

Search was started on Friday for the missing man and a number of airplanes flew over the area without success. A. B. (Bo) Williams, engineer, San Angelo, Tex., with Laughlin-Simmons & Co., Tulsa, geological engineers, and a friend of Mr. Fuller, decided he would attempt by a scouting of his maps to locate the place where the plane might have struck some high elevation. He was aided in this work by Paul Green, his assistant, and they checked elevations of all points in the general vicinity of Boerne and finally located what is locally known as Mount Smith with an elevation about 50 feet higher than any other point in that area.

How this was accomplished is told by Mr. Williams as follows:

"After studying my topographical maps I reasoned that Mr. Fuller could have been flying low enough to strike the mountain even though he missed the other hills of the vicinity."

So Mr. Williams marked a spot on his map which he decided would be near the vicinity the ship would strike if flying low in a southeasterly direction headed for the San Antonio airport. Messrs. Williams and Green then drove to the ranch upon which this higher hill is located and after tramping about 1½ miles through the mesquite brush to a point as near as they could get to the hillside they set up their surveying instruments and a plane table and almost immediately after viewing the hill through the telescopic alidade they spotted the yellow wings of the plane among the trees.

The altitude of this particular hill where Mr. Fuller's plane struck is about 1,900 feet above sea level and about 50 feet higher than any other hill in the vicinity which was the condition that decided Mr. Williams to try to find the missing plane on that particular hillside. After sighting the wrecked plane through the alidade it took some time to reach it and when the two men got there they found the body of the pilot still in the seat. Before the plane struck, Mr. Fuller evidently sensed danger for the switches had been cut off and a plunger pulled out which permitted the motor to be flooded with an inert fluid to avert fire.

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Member, Audit Bureau of Circulations

The Tax Jungle

The gasoline consumer is just beginning to realize the burden of double taxation. The Federal tax, initiated for a year only, is to be continued, as such "temporary" taxes usually are.

The oil industry, viewing the decline in gasoline consumption, cannot attribute it wholly to general depression because it is observed that the decline is most marked where the tax on gasoline is heaviest.

The old law of "diminishing returns"—that excessive taxation lessens consumption and therefore revenue from taxation—is still working.

It was timely therefore that the first conference of the American Legislators Association, composed of representatives from the legislatures of some 30 states, should have met at Washington to discuss duplication of taxes and should have been welcomed by President Hoover in an address of special emphasis.

Haphazard development of sources of taxation in federal, state and local governments has, he said, produced a perfect maze of taxation. Some of the speakers referred to it as the "tax jungle", a tangled growth of overlapping and conflicting tax systems with inevitable invasions by one authority of tax areas properly belonging to another.

The tax on gasoline was developed by the States and supposed to belong exclusively to their jurisdiction. But it has been so prolific that local governments and then the Federal government have been unable to resist the temptation to tap it also.

These levies by other authorities have not of course been followed by any corresponding reduction in the State levies with the result that the consumer is paying double and in some cases triple taxation.

Similarly the Federal tax on cigarets has been duplicated in many of the States, just as the tax on incomes, so that the taxpayer is paying double the original levy. A normal tax of two per cent on incomes did not seem so bad but when the States add two per cent more and the Federal tax jumps to four per cent, making the total six per cent it is a tax that can be felt.

Popular revulsion reaching the legislators was undoubtedly responsible for this conference at Washington to consider means of arriving at some uniformity of taxation that would avoid this duplication and multiplication of the burden.

It was recognized that ease of collection and productivity of any tax invited invasion of that field by other authorities. This was shown in the taxes on incomes, on cigarets and on gasoline.

In the cases of the tobacco industry and the gasoline industry this double taxation was practically invited by price wars that kept the prices of their products so low that taxes could be added without provoking consumer revolt.

But the decline in consumption has shown that there is a limit to what the consumer will pay, beyond which taxation will bring in less.

Taxpayers, examining their tax bills more closely than ever before, are resenting this doubled taxation, asking if there is no limit to political rapacity.

Prudent legislators are noting these signs of unrest and the conference at Washington is a first step towards arousing opinion about the need for simplication of taxation.

The suggestion most discussed there regarding gasoline is of immediate interest and importance to the oil industry.

State collection of gasoline taxation has been far from satisfactory. It has been in many cases incapable of preventing the bootlegging of tax free gasoline or of preventing absurd exemptions.

The effect on the oil industry of this failure on the part of States has been a disastrous breaking down of the crude oil and refined markets through the price cutting racket built up on tax evasion.

It was hoped by some that the introduction of a Federal tax would lead to the abatement of this tax evasion but so long as the State and Federal taxes are collected separately it is not clear what gain there can be.

The suggestion favorably received at the Washington conference that the tax be levied and collected as a whole by the Federal government, with allotment of a uniform part of the tax to the States, offers much more hope of wiping out evasion and exemption frauds.

It would have the additional advantage that it would secure a uniform tax on gasoline throughout all the States and, if properly considered, a reduction of the total levy to a rate that would not diminish consumption.

It may be expected that such a suggestion will be bitterly opposed by the political powers in many states who will talk loudly about state's rights and local government but the taxpayer is no longer in the mood to be swayed by rhetorical humbug when it is costing him more than he can afford to pay.

He can see no advantage in being compelled to go through the ordeal of taxpaying here, there and elsewhere when it would be so much simpler and easier to deal with one authority. More important, he feels it an imposition when this division is used to double tax him.

If there were any science in taxation there would be a definite allocation of tax sources to Federal, State and local uses which would not be invaded by any of the others.

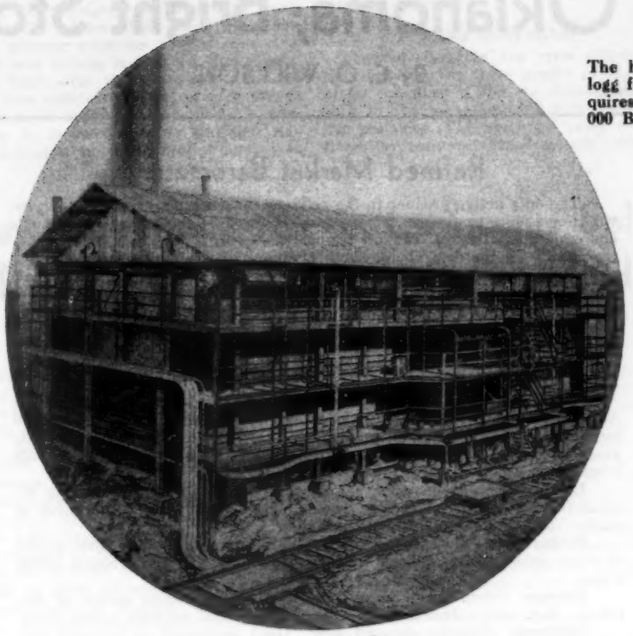
The American taxpayer is paying too much for government because he has too much government or too many. There was a lot of sense in Paine's declaration that "Society is produced by our wants and government by our wickedness. Society is a blessing but government is a necessary evil". Why multiply the evil simply to provide more places for officeholders and more excuses for doubling taxes?

Since there are enough legislators in the various states to hold a conference at Washington looking toward simplification of our tax system the oil industry and all other industries and business men and taxpayers generally should take advantage of this nucleus to get energetically behind them.

The very fact that they have entered upon the problem, bringing it prominently before the nation, securing, as President Hoover said, that thought shall be directed to it, is indeed a contribution of importance.

The opportunity it offers of getting before the people the argument for uniform gasoline taxation and a system that will eliminate bootlegging and evasion should not be missed.

Two independent jurisdictions taxing the same product on different bases and by different principles cannot, as one speaker said, obtain any support on an appeal to common sense.



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Cold Weather Improves Demand for All Grades of Fuels in Oklahoma; Bright Stocks Lower

By C. O. WILLSON

A cold wave throughout the consuming territory of the Mid-Continent refiners extending north to the Canadian border brought an overnight demand for all grades of furnace oils and stiffened the market, which through January had shown a downward trend. Buying of furnace oil material, which included high gravity fuel oils as well as the several grades of distillate, picked up quickly on Friday and Saturday of last week and by Monday and Tuesday several sources of supply in Oklahoma and other Mid-Continent areas were sold up for the remainder of the week. Prices improved slightly on some grades, and should the heavy demand continue, additional improvement in quotations is predicted.

Most of the trade are in agreement that stocks of furnace oil material are low both at refineries and bulk stations. During the fall and early winter supplies were limited and this fact was responsible for the price advances, which placed these fractions of refinery output in a relatively strong position. Since the first of the year the unseasonably warm weather in the middle western states centering in Chicago reduced the demand for special grades of fuels and this fact, coupled with the uncertainty regarding the crude oil market brought a steady decline in prices through January and the first few days of February. Several refiners, believing that the season of maximum consumption was over, liquidated their storage and many jobbers reduced their purchases. Others of the trade were less pessimistic regarding the demand, pointing out that in the past February was often the best consuming month of the season with a continued heavy demand through the first half of March.

With this statistical situation in mind, many observers believe that there is a possibility of a strong market for all grades of low cold test fuels over the next six weeks when the consuming period begins to taper off. It is pointed out that the continued low prices for gasoline assure that crude oil runs to stills will not be materially increased so there is little danger of increased production of the fuels suitable for furnace oils. A complete collapse in the crude oil price structure, which appears improbable, could, of course, change this situation in a few days. It was the expectation of this development last month that caused many furnace oil buyers to reduce their purchases and they were included among the buyers who on Saturday and the first of this week were asking for rush shipments to their bulk distributing points.

Refined Market Barometer

The only active product in the refinery tank car markets over the past week, according to reports from several refinery centers, were furnace oils and other special fuels. The low temperatures over a large part of the country stimulated the demand for these products, although there were no general advances in refinery quotations. The same cold weather brought dullness in the domestic demand for motor fuels and prices on all grades were lower at several points. Natural gasolines continued firm. Kerosene prices were lower at many refineries. Heavy fuels unchanged. Industrial gas oils were reported slow. Important reductions became effective in several grades of paraffin base cylinder stocks and neutral oils in both Pennsylvania and the Mid-Continent. Wax prices reflect weakness.

Mid-Continent—Gasoline prices lower except in North Louisiana and Arkansas. Kerosene prices lower at several refineries. More active demand for furnace oil distillates and prices firm. Low cold test fuels steady. Natural gasolines unchanged. Bright stocks and some grades of neutral oils lower. Paraffin wax prices lower.

East Coast—Gasoline tank car market continues unsettled. Strong demand for furnace oils. Kerosene demand satisfactory. Prices unchanged in bunker fuels and gas oils. Lubricants slow.

Pennsylvania—Several price reductions in neutral oils and some grades of steam refined stocks. Bright stocks steady. Gasoline and kerosene prices lower.

Chicago—Prices lower on gasoline, kerosene and some grades of distillate. More active demand for furnace oils. Special naphtha prices lower.

California—Gasoline demand slow. Good movement of kerosene and better grades of distillate.

Gulf Coast—Better movement of gasoline. Kerosene firm. Little new business in fuel oil and gas oil.

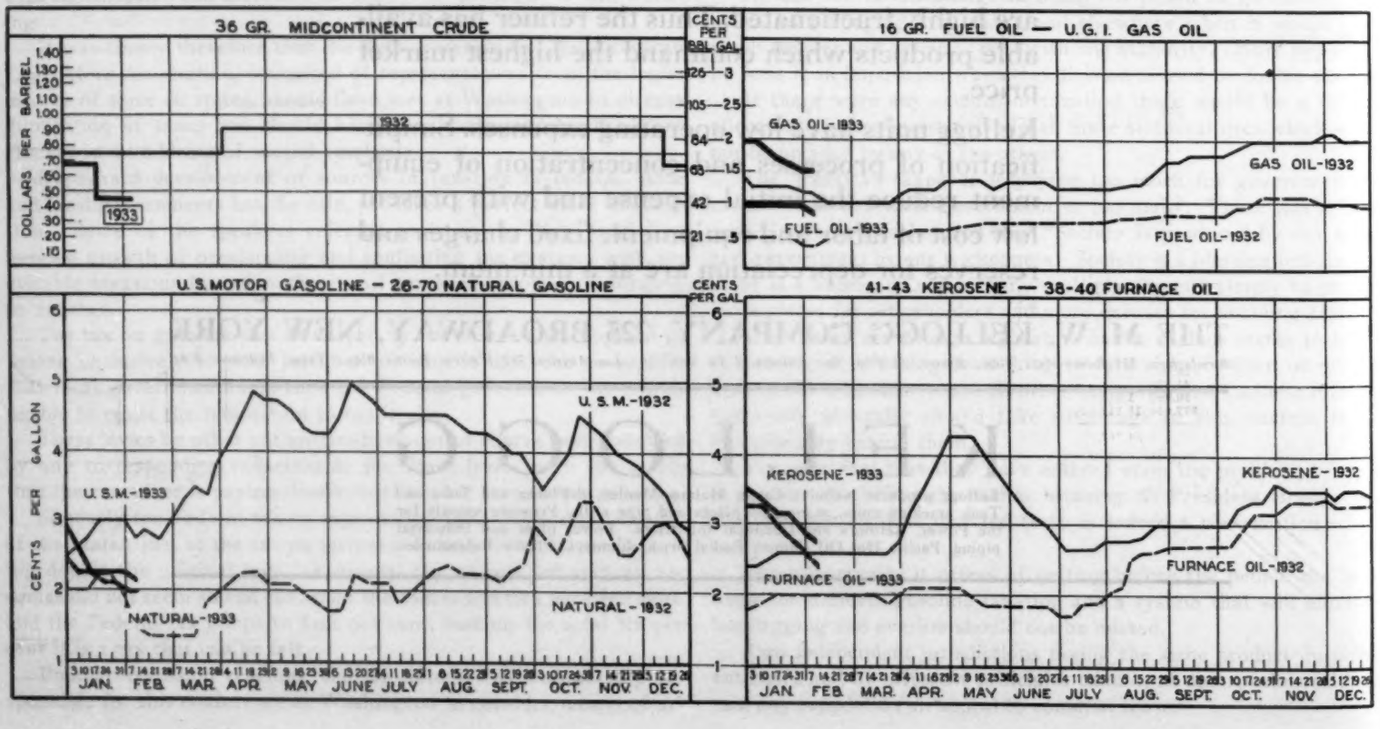
Gasoline Situation

There were two changes in the gasoline price quotations as published in this issue. The low price for the low octane grade of U. S. Motor gasoline in Oklahoma (Group 3) was reduced from 2¼ to 2⅛ cents and the differential between the low octane grade (third grade) and the middle octane grade (regular grade) was reduced from three-eighths to one-fourth cent and the differential between the third grade and premium grade was changed from five-eighths to one-half cent. These reductions in differentials applied to all the Mid-Continent refining areas. Thus in effect while the prices on the low octane U. S. Motor gasoline were lowered one-eighth cent, the regular and premium grades were reduced one-fourth cent.

The reduction in the low octane gasoline reflects a general lowering of prices which materialized despite the efforts of refiners to prevent further concessions. The Mid-Continent gasoline market is not without its encouraging factors from the standpoint of the sellers but so far the unfavorable developments continue to dominate prices. On the favorable side is the much stronger position of North Louisiana, Arkansas and several East Texas refiners. This has been brought about by the larger shipments of gasoline to the Gulf Coast where it moved to the coastal and export trade. This movement has been increasing in volume since early in January and as a result several refiners in the three states have reduced their inventories and have orders on their books which will take a large part of their output through February.

This movement of gasoline to the Gulf

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



Coast—the largest in over a year from the Mid-Continent—does not reflect any improvement in markets at the coast, but has been brought about by the collapse in the domestic market at interior points. Due to this development the East Texas, North Louisiana and Arkansas refiners with their low freight rates to the coast have been placed in a position where they can compete in the coastal business despite the fact that prices at all points are extremely low.

Freight Advantages

Oklahoma, Kansas and Texas Panhandle refineries are not sharing in this business to the Gulf Coast due to the freight rate disadvantage. However, since it is furnishing outlets for gasoline which otherwise would be sold in the northern markets, the entire Mid-Continent and Middle West market is benefiting in these shipments to the South.

The freight advantage of North Louisiana, Arkansas and East Texas refiners over Oklahoma and Kansas amounts to approximately three-fourths cent per gallon. The freight rate on gasoline from North Louisiana and Arkansas refineries to New Orleans is 12 cents per 100, or .792 cent per gallon. The East Texas refiners have the same rate in shipments to Texas Gulf Coast points. The rate from Kansas and Oklahoma to both Louisiana and Texas Gulf Coast points is 23 cents per 100, or 1.518 cents per gallon. As long as this comparative rate situation exists it is practically certain that the export and coastwise business available to inland refiners will go to the Louisiana, Arkansas and Texas refineries. In addition to the low freight rates, the largest refiner in North Louisiana is moving gasoline by pipe line from Shreveport to Port Neches. The line belongs to the Texas Pipe Line Co. and was formerly used in the movement of crude oil. The transportation charge is understood to be less than the rail rates.

Contract Gasoline

Despite this improved demand to the South, the northern market of Mid-Continent has failed to show any sustained price improvement. Last week it appeared for a time that prices had been pegged with the possibility of improvement before the middle of February. However, as was the case the latter part of January after showing firmness for a day or two, cheap material was again available from a few sources and the market weakened. In regard to the Middle West market, many of the trade state that prices are now being dominated by Middle West material which is being sold on contract at prices under the low of daily published prices. This gasoline, part of which is delivered from the Mid-Continent to the Middle West by pipe line, is sold on a basis of one-fourth to three-eighths cent under the low published prices. In the hands of brokers and jobbers this gasoline is resold direct to the trade on a basis of one-eighth to one-fourth cent under the market. This situation is not new because contracts of this character have been factors in the spot market several times over the past two years. It has been pointed out that price improvement to be reflected in published quotations, is impossible when the spot demand is slow and this material dominates the open market transactions. It is claimed that had it not been for this contract material, the Mid-Continent market last week would have reflected the improved condition in regard to supply and demand and prices would have improved. Due to the large offerings of this resale material the base published prices actually declined.

Reducing Differentials

The reductions in the price differentials between the three grades of U. S. Motor gasoline is due to developments both in the manufacturing and marketing practices. The abnormal price relationships between gasoline and other products is being more and more reflected in refinery processing. At this time, kerosene and distillate cuts are worth as much or more per gallon than the low octane or middle octane gasolines. As a result most refiners are obtaining as large yield as possible of the kerosene and distillate cuts at the expense of gasoline. The high distillation fractions formerly left in gasoline are now being removed by fractionation and added to the kerosene. Due to this situation, lower endpoint gasolines are being produced because as one refiner pointed out at his plant it is cheaper now to produce a 390 or 400 endpoint gasoline than it is the regular grades of U. S. Motor with endpoints around 430.

With the lower endpoint gasolines, the antiknock rating of the gasolines are being improved, the higher endpoint fractions now being removed from the gasoline and added to the kerosene having a low rating as regards antiknock properties. By changing their manufacturing operations to meet this new marketing condition, cases are cited in which refiners have added from two to five octane numbers to the antiknock rating of their finished gasoline. This situation will, of course, not apply to many refiners but for the Mid-Continent refining industry as a unit it is said to be in part responsible for the increased offerings of regular and premium gasolines with little or no additional cost over the low octane material. It is also true that many refiners have improved their refinery distillation equipment so they now have no low octane gasoline to offer on the spot market. In a dull market, this has meant that the accustomed premiums for the better grades of motor fuels are not obtainable from many of the buyers. Some of the trade believe that this is a permanent development while others feel that with the start of the spring and summer demand that the wider price differentials based on octane rating will again return.

Gasoline and Naphtha

The price situation in regard to the three grades of U. S. Motor gasoline has been explained in the previous paragraphs. The low octane U. S. Motor is quoted at a low of 2⅛ cents with the regular at 2⅝ cents and the premium 2⅝ cents. During the week some East Texas low octane material was quoted under 2 cents, basis Group 3, and the same prices were quoted on the pipe line material previously explained. In Oklahoma, the first of the week, the low priced sellers were generally asking 2

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Law Governing Tax on Lubricants Sold By One Refiner to Another Clarified

By CHARLES E. KERN
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Feb. 4.—Sales of lubricating oil to other refineries and through agents, and the law governing them, have been clarified by a ruling of the Bureau of Internal Revenue requested by the National Petroleum Association. The bureau states:

"Reference is made to your letter of December 31, 1932, requesting information with regard to informal ruling No. 68 relating to the taxability, under Section 601 (c) (1) of the Revenue Act of 1932, of sales of lubricating oil by the manufacturer or producer thereof to another manufacturer of lubricating oils for the sole purpose of resale in the same form in which purchased.

"Question 1. You wish to be advised whether the second manufacturer may take a credit on a monthly return for a tax already paid by the first manufacturer on oil sold to the second manufacturer for resale purposes and which was passed on to him.

"Answer. You are advised that where a manufacturer or producer of lubricating oils sells tax paid lubricating oil for lubricating purposes, in the same form in which purchased, no tax attaches to his sale of the oil in as much as a tax has already been paid thereon. Since no tax attaches to the resale of the oil by the second manufacturer, a credit may not be taken nor a refund allowed in such cases."

"Question 2. 'Is a sale from X, a refiner, to Y, a marketer, thence to V, a second refiner, for further manufacture, within the province of the ruling dealing with sales for use other than lubrication? In considering this matter it should be borne in mind that a sale for further manufacture is a sale for a use other than for lubrication. In other words, may a tax-free sale for further manufacture be made, as in the case of a sale for use other than lubrication, provided the parties give the appropriate certificate to the effect that the oil is to be used for a purpose other than lubrication?'

"Answer. A sale of lubricating oil for further manufacture may not be made under exemption certificate as outlined in Paragraph 2 of Treasury Decision 4,339, which provides that lubricating oil having both lubricating and nonlubricating uses may be sold tax-free by the manufacturer or producer thereof, for the purpose of use other than that of lubrication provided he has furnished a certificate to the effect that the oil will be used for the purpose stated and not for lubrication, or that it will be resold to a person who will furnish a similar certificate. That certificate applies when the oil is sold for the purpose of consumption in a manner other than that of lubrication. Sales for further manufacture are specifically covered by Section 620 of the act. Under that section 'X' may make tax-free sales of lubricating oil to 'Y' for the purpose of use as

(Continued on Page 28)

American Petroleum Institute Weekly Refinery Statistics

Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Total motor fuel stocks. (4) Gas oil and fuel oil stocks. All figures in 42-gallon barrels.

Week Ending February 4, 1933, Compared to Week Ago

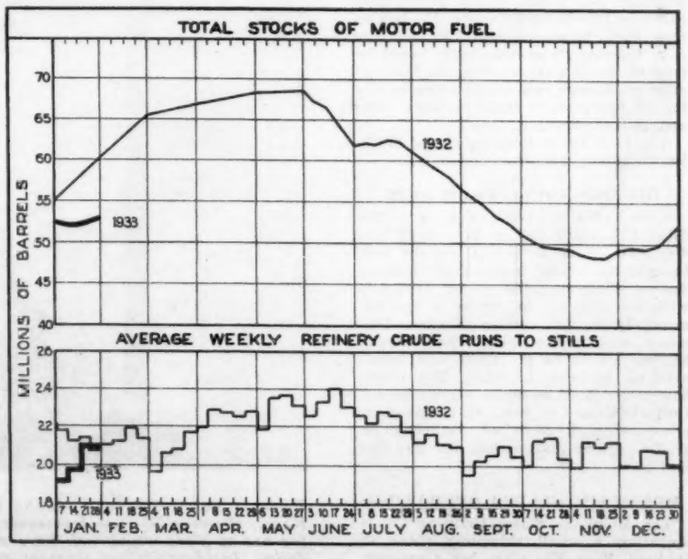
	Week ending February 4				Week ending January 28, 1933			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	99.1	450,000	13,939,000	7,537,000	99.1	472,000	12,885,000	7,835,000
Appalachian	95.0	72,000	1,932,000	941,000	95.0	81,000	1,875,000	933,000
Ind., Ill., Ky.	97.5	257,000	7,462,000	3,343,000	97.5	300,000	7,396,000	3,344,000
Okla., Kans., Mo.	84 9	189,000	4,931,000	2,935,000	84.9	195,000	4,882,000	2,895,000
Inland Texas	57.4	79,000	1,513,000	2,205,000	56.4	82,000	1,524,000	2,248,000
Tex. Gulf	97.7	427,000	6,261,000	6,836,000	97.7	416,000	6,281,000	6,456,000
La. Gulf	97.3	84,000	1,539,000	2,328,000	97.3	87,000	1,532,000	2,384,000
N. La. and Ark.	88.5	41,000	278,000	528,000	88.5	40,000	304,000	503,000
Rocky Mtn.	90.8	30,000	1,314,000	530,000	90.8	32,000	1,250,000	495,000
California	94.6	377,000	15,118,000	99,019,000	94.6	393,000	15,282,000	99,116,000
Total U. S.	91.6	2,006,000	54,287,000	126,202,000	91.6	2,098,000	53,211,000	126,209,000

Total motor fuel stocks Bureau of Mines basis, 55,400,000 bbls.

Week Ending February 4, 1933, Compared to Year Ago

	Week ending February 4				Week Ending February 6, 1932			
	(1)	(2)	(3)	(4)	(1)	(2)	(*3)	(4)
East Coast	99.1	450,000	13,939,000	7,537,000	100.0	452,900	5,228,000	7,395,000
Appalachian	95.0	72,000	1,932,000	941,000	91.8	77,100	1,618,000	1,297,000
Ind., Ill., Ky.	97.5	257,000	7,462,000	3,343,000	98.9	254,900	5,065,000	4,906,000
Okla., Kans., Mo.	84.9	189,000	4,931,000	2,935,000	89.3	206,900	3,560,000	3,527,000
Inland Texas	57.4	79,000	1,513,000	2,205,000	....	109,300	1,366,000	2,796,000
Tex. Gulf	97.7	427,000	6,261,000	6,836,000	99.8	367,000	6,996,000	7,914,000
La. Gulf	97.3	84,000	1,539,000	2,328,000	100.0	47,700	156,000	850,000
N. La. and Ark.	88.5	41,000	278,000	528,000	....	95,700	1,089,000	3,137,000
Rocky Mtn.	90.8	30,000	1,314,000	530,000	89.4	36,300	1,931,000	726,000
California	94.6	377,000	15,118,000	99,019,000	97.1	464,100	13,867,000	96,157,000
Total U. S.	91.6	2,006,000	54,287,000	126,202,000	95.2	2,111,900	41,376,000	128,705,000

*Refinery stocks only.



Data based on weekly reports of American Petroleum Institute. Figures for week just ended not shown in graph but are included in accompanying table

NEWS FOR PETROLEUM REFINERS

Globe Company to Enlarge Refinery at Lemont, Ill.

The Globe Oil & Refining Co. has awarded contracts for equipment which will increase the capacity of its Lemont, Ill., refinery to 8,000 bbls. daily. The improvements include increases in skimming and cracking capacities. The Winkler-Koch Engineering Co. of Wichita, Kans., will have charge of the construction work.

The enlargements at Lemont and the new refinery at McPherson, Kans., will make the Globe company one of the largest independent refiners of the Mid-Continent and Middle West. The McPherson refinery, which has a crude oil capacity of 8,000 bbls. daily with sufficient cracking and reforming capacity to handle all the charging stock available, will be in operation before the end of the month. The Globe company for several years has owned and operated a 5,000-bbl. refinery at Blackwell, Okla.

California Distillate to Eastern Seaboard Markets

NEW YORK, Feb. 4.—Record sales of distillate burners in the New England area during the past year have been reflected by an unusually heavy demand for kerosene from that area, and considerable quantities of burning oil are being shipped into the territory from California.

Numerous cargoes of California kerosene have been landed at Boston, Fall River, and Tiverton, R. I., in recent months, and at the present time three tankers, carrying in the aggregate 233,000 bbls. of kerosene from California, are afloat for Fall River and Tiverton.

The sudden spurt in kerosene consumption in the Atlantic Seaboard area has caught many of the East Coast refiners and marketers unprepared to take care of this added business, and they have been compelled to draw on California and the Gulf Coast for additional supplies.

MAY BUILD STAMFORD PLANT

WICHITA FALLS, Tex., Feb. 4.—The Fillman-Hampton Oil Co. of Wichita Falls may build a small skimming plant at Stamford in Jones County to process oil from their leases on the Morris-Buie ranch in Shackelford County. Production from these leases averages 250 bbls. per day. Gasoline from this plant could be trucked out to stations along the highway running through this section, thereby giving the operators an outlet for their crude and refined products.

The Dale Oil & Refining Co. of Wichita Falls has shut down indefinitely.

DISMISS SHELL FROM SUIT

CINCINNATI, Ohio, Feb. 4.—The Shell Union Oil Co. of New York was dismissed as a defendant in the suit brought by seven independent gasoline dealers, charging nine major producers with an attempt to create a gasoline monopoly in this section of Ohio. Dismissal was on the ground the company has no offices in the State and transacts no business in Ohio. The court, however, refused to quash service on the Gulf Refining Co. With that, the court proceeded with technical testimony on grades, prices and outlets for gasoline in Ohio.

MOUNTAIN STATES OPERATING

The Mountain States Refining Co. is operating a small skimming plant at Orchard, Wyo. The plant has a capacity of 100 bbls. daily.

Premier of Canada Explains Policies in Regard to Oil Barter Arrangements

CHATHAM, Ontario, Feb. 4.—Speaking in parliament at Ottawa on Tuesday, Premier R. B. Bennett made the first official statement of the Canadian government with reference to the mooted proposal to barter Canadian cattle and hides for Russian oil and coal.

In his 40-minute statement, Mr. Bennet reviewed the history of trade relations between Soviet Russia and both the United Kingdom and Canada. He pointed out that in 1930 the Canadian government was empowered to place an embargo on imports from any country not a party to the Versailles treaty; and an embargo was actually placed on coal, wood pulp, plup wood, lumber, timber, asbestos and dressed furs from Soviet Russia. Except for these items there were never any restrictions on imports from Russia.

In the trade agreements made at the imperial economic conference at Ottawa in 1932, a clause was, however, inserted requiring empire countries to take measures to protect trade under the imperial preferences from unfair competition by other countries.

"Later in 1932," said Mr. Bennett, "a private arrangement was made between an aluminum company in Canada and the Soviet government under which a certain quantity of aluminum was purchased and paid for by petroleum. The government of Canada was not a party to the transaction, except in so far as it became necessary to determine the duty payable on the imported petroleum."

In connection with the present oil-cattle barter proposal, Mr. Bennett reviewed the correspondence with G. G. Serkau of Winnipeg, representing the Canadian syndicate which was promoting the project. The suggested contract was for the purchase by Soviet Russia from the syndicate of 100,000 head of live cattle to be delivered from time to time within a year at Black Sea ports. In exchange Soviet Russia was to deliver to the syndicate at Black Sea ports the following items:

"Petrol.—During the months of April to October, 1933, both inclusive, 2,000 metric tons per month; during the months of November, 1933 to March, 1934, both inclusive, 5,000 metric tons per month; and from April, 1934, to the end of the term, 20,000 metric tons per month.

"Kerosene.—Beginning with April, 1933, from 5,000 to 15,000 metric tons per month during the term.

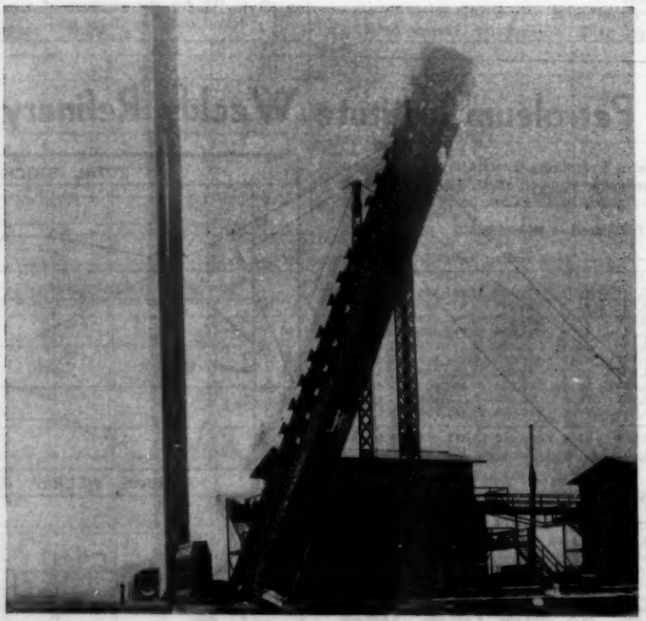
"Lubricating oil.—Beginning with April, 1933, from 200 to 1,000 metric tons per month during the term."

The syndicate was also to receive specified quantities of anthracite coal, from 3,000 to 20,000 metric tons per month; and to have the privilege of buying from the Soviet pulp wood for delivery in the United States.

The proposal involved the guaranteeing by the Canadian government of Russian 7 per cent bonds to an extent of possibly $4,000,000; and further guaranteeing against loss through the refusal or failure of the Russian government to

(Continued on Page 31)

Install Mammoth Fractionating Tower at Kansas Refinery



View at new refinery of Globe Oil & Refining Co. at McPherson, Kans., showing 93-foot fractionating tower being placed in position for use at plant which will have a crude oil capacity of 8,000 barrels daily. Incidentally the weather man gave the builders a temperature of 12 deg. below zero the day the tower was installed

Install Crude Distillation Unit at Oil Creek Refinery

The Oil Creek Refining Co. has completed arrangements for the installation of a new crude distillation unit at its Titusville, Pa., refinery. The installation of the unit with other improvements will require approximately four months. The Alco Products, Inc., has been awarded the contract covering the installation of the crude unit.

The Oil Creek company for several years has operated its refinery with Pennsylvania crude oil, manufacturing a complete line of lubricating oils. The plant has a capacity of 1,000 bbls. daily.

Cite Case in Which Jobber Is Not Given a Tax Refund

WASHINGTON, D. C., Feb. 4.—The following has been held by the Bureau of Internal Revenue not to be such an agency arrangement as would exempt from tax sales to states or political subdivisions through jobbers.

The jobber makes delivery from his own stock to a governmental agency tax-free. He then secures an exemption certificate, certifying that the goods are purchased for use in a governmental function. He sends these exemption certificates to the refining company and secures credit from the refining company for the tax. The orders are taken by the jobber in the name of the refining company, and, if the account is sold on credit, the refining company invoices the goods direct. The refining company then takes credit on its Federal tax return for the amount of the tax covered by the exemption certificate.—C. E. K.

PREPARE REFINERY PROGRAM

The program for the Division of Refining of the American Petroleum Institute in its mid-year meeting at Tulsa, May 17, 18 and 19, is being worked out by a committee headed by R. T. Haslam, of the Standard Oil Development Co., and Dr. R. P. Anderson, of the Institute's staff, who is secretary of the committee.

Members of the committee working with Mr. Haslam and Doctor Anderson are: H. W. Camp, Empire Oil & Refining Co., Tulsa; T. G. Delbridge, the Atlantic Refining Co., Philadelphia; R. E. Haylett, Union Oil Co. of California, Los Angeles; E. W. Isom, Sinclair Refining Co., New York; K. G. Mackenzie, The Texas Company, New York; Walter Miller, Continental Oil Co., Ponca City, Okla.; L. W. Parsons, Tide Water Oil Co., Bayonne; Arthur E. Pew, Jr., Sun Oil Co., Philadelphia; J. B. Rather, Socony-Vacuum Corp., New York; A. S. Russell, Standard Oil Co. of California, San Francisco; Herschel G. Smith, Gulf Refining Co., Philadelphia; F. W. L. Tydeman, Shell Development Co., San Francisco; and R. E. Wilson, Standard Oil Co. (Indiana), Chicago.

CHEMICAL SOCIETY MEETS

The petroleum group of the Oklahoma section of the American Chemical Society will hold the annual ladies night in Tulsa February 11. Following dinner in the Chamber of Commerce dining room in the Tulsa Building talks will be given on two subjects.

PLANT AT SHERIDAN, WYO.

The Smith Close Co. is building a small skimming plant near Sheridan, Wyo. The new plant which will have a capacity of 150 bbls. daily will be in operation the latter part of the month. It will operate with Osage crude oil brought from the field to the refinery by tank truck.

Tret-O-lite

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MANUFACTURING CHEMISTS

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Tulsa, Oklahoma
Wewoka, Oklahoma
San Antonio, Texas
Oklahoma City, Oklahoma
Lake Charles, Louisiana
El Dorado, Arkansas
Wichita Falls, Texas
Houston, Texas
Midland, Texas
Longview, Texas
Pampa, Texas
Casper, Wyoming

Uncertainty Restraining Buying in Chicago Area; February Weather Favors Heating Oils

By R. C. CONINE
Chicago Bureau, The Oil and Gas Journal

CHICAGO, Feb. 6.—Refined petroleum products in the Chicago district Monday reflected pricewise the two principal adverse factors operating in the oil business and ignored constructive elements. Uncertainty as to the outcome of the current tendencies in crude oil production, and weakening, due to weather conditions, of the few products which were withstanding bearish influences because of good statistical position, promised at the beginning of this week to reduce buying activity to a minimum.

Quotations on refined products Monday showed declines in all types of materials. Gasolines moved down an eighth of a cent to a quarter of a cent; special naphthas, according to the announcements of major sellers, fell a quarter of a cent down the list. The distillates and gas oils declined from an eighth of a cent to a quarter of a cent, and the fuel oils, with the exception of the heavier grades, moved down 5 cents to 10 cents a barrel. The Standard, Empire, Shell and Texas companies cut the price of coke $1 per ton. In the lubs, Mid-Continent bright stocks were reduced 1½ cents making the 150-160, zero, 14½ cents. Price cuts in petroleum coke come as the result of lower coal markets. On April 1 anthracite coal will be cut $3 a ton, it has been announced, and lower prices are already in effect on Pocahontas and Illinois bituminous grades. The position of the gasoline markets has caused some changes in refinery operations so that distillate, gas oil and light fuel oil output has been increased to a considerable extent. However, it may be pointed out that kerosene stocks are about 50 per cent of what they were last year at this time, and distillate and gas oil stocks are in a similarly good statistical position.

New Oil Heat Association

Heating oil distributors were looking forward to better marketing conditions in the Chicago district as the result of increasing the facilities of their distributors' association. The Chicago Oil Heat Institute is no more. In its place has come the Chicago Burning Oil Distributors Association, with Aaron Sapiro, attorney, as general counsel and chief executive. John Carson, formerly general manager of the Oil Heat Institute, will continue to take an active part in the business of the new association. Other officers elected for the new association are: Floyd Moore, Seneca Petroleum Co., president; C. R. Jonswald, Lynch-Clarissey Co., vice president; O. L. Peterson, George C. Peterson Co., director. All other officers of the older association were re-elected to hold similar positions in the new group. Offices of the association have been opened at 1614 LaSalle-Wacker Building. Tank wagon prices for heating oils are unchanged ranging from 4¾ cents for the No. 5 oil (18-22), to 7 cents for the No. 1 oil (38-40).

Weather Favoring Heating Oils

While January just passed was the warmest January in the Chicago district in about 80 years, February has started out as a cold month and if the present weather continues it is likely that the heating fuels will be in sufficient demand to bring about a sharp upward revision in prices. However, it is indicated that the refiners in the Mid-Continent as well as in the Chicago district are taking more interest in distillate and fuel oil production, and this may weaken the position of the heating oils to some extent.

Gasoline Retail Developments

No changes are announced this week in the territory in the regular and premium grade gasoline service station and tank wagon postings. The third grade gasoline prices, however, have been subject to numerous revisions in the territory. Changes in the third grade at principal points in the territory in the past week have been as follows: Decatur, Ill., service station price cut 0.1 cent from 14.1 cents a gallon; Peoria, service station price cut from 14 cents to 13 cents; Mason City, Iowa, tank wagon price cut from 14.2 cents to 12.6 cents; Milwaukee, service station price cut from 13.3 cents to 12.5 cents, February 1, and tank wagon cut from 13.3 cents to 12.5 cents, February 3. On January 31, tank wagon price of third grade gasoline was cut 0.6 cent at Decatur to 13 cents a gallon.

Bond Relief Sought

Service station operators in the nearby states are seeking sources of supply who will assume responsibility for collection of Federal and state gasoline taxes. In the surrounding states where the motor fuel tax laws require that service station operators be bonded in the interest of the state gasoline tax revenues, the operators are finding it practically impossible to secure the services of registered bonding companies and for this reason several marketers have assumed responsibility for their customers. A typical inquiry in this connection to this office is as follows: "Are there in Chicago district independent marketers, jobbers or transfer companies who will make large tank truck deliveries (10,000 gallons or more) at approximately tank car prices, plus freight and tax? If there are such companies, are they in a position to collect on delivery of gasoline to the purchaser the price plus freight and tax thus relieving the purchaser of bonded obligations to state and Federal governments?" The answer is yes.

Lower Demand Is New Factor

It is easily apparent in Chicago district oil trade circles, as well as elsewhere, that marketers are having some difficulty in readjusting their viewpoint from that of 1929 to 1933. The gasoline business, until the onset of various discriminatory influences such as new taxes, antitrucking commission decisions, and the seasonal dwindling of interest on the part of the motoring public, was in a fair way to lay a firm foundation for 1933 business.

Adverse elements, according to many observers, have loomed too largely in the mind of the buying trade, and the result has been a depression in spirit which nothing will lift but a decisive constructive move in the crude oil situation. In this connection it may be said that a symposium of opinions in regard to the editorial "Politics and Proration," in last week's issue of The Oil and Gas Journal reveals that the "swing" of opinion has moved definitely away from the proposal to put the East Texas and Oklahoma City Fields on a "wide open" basis and eventually "behind us" conception.

An executive of one of the largest companies in the territory sums up current opinion as follows: "Until crude oil producers see that it is to their vital interest to see that no more crude oil is produced than the market demand calls for, there is no hope for the refined products markets. There is absolutely no distinction between physical waste and market waste. Crude oil transportation facilities in the East Texas Field, for instance, are between 1,000,000 and 1,500,000 bbls. daily capacity, counting everything. Even if a number of companies have sought to profit by building, or buying second-hand storage, or even, as in one case, by sending 700 or more tank cars to pick up crude oil under the market, the fact cannot be escaped that a surplus of crude oil means a surplus of gasoline, distillates and residual oils, and lower realizations on investments in wells, refineries and markets."

Here in the Chicago district there is the possibility of a new refinery. On Jones Island in Milwaukee Harbor one marketer who has hitherfore specialized in special naphtha sales, is planning to assure himself of an adequate supply of gasoline, gas oil and distillate by building a small skimming plant. The island covers about 7 acres of ground, so it is evident this proposed plant cannot be a factor in this district unless the most costly and condensed refinery system is installed. A two-year monopoly on the harbor business is granted by the city. These advantages were offered to another major company a year ago and were not accepted because it was thought that the island did not have sufficient space for storage tanks.

Gasoline Tank Car Markets

The gasoline tank car markets Monday showed declines of an eighth of a cent to a quarter of a cent a gallon, Group 3. The ruling spot markets are practically in the hands of East Texas, Oklahoma and Kansas refiners, and it is evident that if they do not cease in their attempts to force business prices will fall to the current rumored "East Texas prices" of 1½ cents a gallon. It may be said here, however, that it has been possible to view some of the invoices of jobbers who say that they have bought under 2 cents, Group 3, and in every instance it has been found that the jobbers were indulging in a bit of exaggeration. The lowest invoice showed a price of 2⅛ cents to the jobber. All of the indications in the Chicago district point to a 2⅛-cent low on U. S. Motor gasoline of no octane specifications. It is evident, however, that the spread between low octane and the higher octane ranges has been reduced to steps of a quarter of a cent.

This price of 2⅛ to 2⅜ cents for U. S. Motor, low octane, according to marketers in the Chicago district, cannot hold on for more than a week. There is no reason why jobbers should not begin buying now to fill their depleted storage, but it is likely that these jobbers will wait until they are satisfied that crude oil prices will not be cut. This insistence on the position of the crude oil markets appears to be the crux of the whole situation.

Monday's gasoline tank car markets showed the following changes from last week: U. S. Motor, regular grade gasoline moved down from 2½ cents to 2⅝ cents to a range of 2⅜ to 2⅝ cents a gallon; the premium grade gasoline, which has been the subject of numerous competitive elements, moved down to 2⅝ cents to 3 cents from last week's range of 2¾ to 3⅛ cents. U. S. Motor gasoline, low octane specifications, ruled Monday at 2⅛ to 2⅜ cents. These changes represent declines of an eighth of a cent. The 60-62 400 endpoint gasoline, moving down to 2¼ cents to 2½ cents, from 2½ cents to 2⅝ cents, is reflecting the incursion of "stabilized natural gasolines" which is broadening the so-called "high test" field. The two higher test materials once popular in this district are little in evidence, although some quotations name 2¾ cents for the 64-66 375 endpoint grade, with a top of 3 cents, and 3⅛ cents to 3⅜ cents for the 68-70 360 endpoint material. The aviation, no octane specifications, grade gasoline is offered by numerous sources at prices ranging from 3⅜ to 3⅞ cents.

Gasoline Litigation

Although the abolition of the city tax in St. Louis, Mo., has been expected for several weeks without results, the trade is interested in the decision of the Missouri Supreme Court upholding the St. Louis ordinance which levies a tax of 1 cent per gallon on the sale or storage of motor fuel within the city. The ordinance, according to St. Louis city officials, calls for a storage tax and a sales tax on gasoline, with the storage tax automatically abrogating the storage tax.

Special Naphtha Tank Car Markets

The special naphtha tank car market last week underwent considerable revisions both in the light materials and and the heavy grades. One of the numerous worries which has been added to the seller of special naphthas has been the apparently senseless price wars in automobile tires, and the threat that some paint manufacturers will attempt to solve their problem by striving for the hollow advantage of gallonage. Far more than in the gasoline markets the process of "chiseling" is entering the special naphtha tank car markets. The fact that a contract has been signed means more to the buyer by far than to the producer. The contract assures the buyer that he will have a steady source of supply, when he wants it, but in the interim the buyer can buy outside his contract when the spot markets so dictate. In other words, marketers can look at the slightly higher prices for special naphthas and forget the extra costs of manufacturing the specifications special naphthas. It appears that buyers are working too close to the source of a national resource which once gone can never be replaced.

Major producers and marketers of special naphthas Monday announced reductions of a quarter of a cent a gallon on all materials listed in The Oil and Gas Journal with the exception of the 140-200 lacquer diluent. Prices Monday were revised as follows: Blending naphtha, to conform with the gasoline markets, 2¼ to 2⅜ cents; cleaners' naphtha, 5½ to 5¾ cents; lacquer diluent, 180-250, 6¾ to 7 cents; rubber solvent, 5½ to 5¾ cents; Stoddard solvent, 5 to 5¼ cents; petroleum thinner, 300-415, over 83° flash, 4¼ to 4½ cents; V.M.&P. naphtha, 5¼ to 5½ cents; petroleum spirits, 4 to 4¼ cents. With the exception of the 140-200 lacquer diluent, which is made by two refiners in the territory alone, the entire list of special naphthas declined a quarter of a cent. One of the major sellers quoted the following prices Monday, delivered:

Delivered, Chicago: Cleaners' naphtha, 7.75 cents; V.M.&P. naphtha, 7.50 cents; Stoddard solvent, 7.50 cents; light lacquer diluent, 12.75 cents; medium lac-

(Continued on Page 34)

Weather Stimulating Furnace Oil Sales in East; Gasoline Market Outlook Is Improving

By A. E. MOCKLER

New York Bureau, The Oil and Gas Journal

NEW YORK, Feb. 6.—Cold weather throughout the Atlantic Seaboard area has substantially increased furnace oil consumption, and refiners were getting a heavy volume last week in both their tank car and tank wagon divisions. Notwithstanding the weaker crude market, refinery prices for furnace oils were well maintained, and some improvement was discernible in retail markets which had been coming in for some price cutting in recent weeks.

There was very little material change in the gasoline situation during the week. Posted prices were unchanged at principal refining and terminal centers, and while some price cutting was still being done, it was apparent that the market had developed a definitely firmer undertone, and refiners were more optimistic as to the outlook for maintenance of present prices. Any general renewal of shading on the part of independent marketers, however, will probably lead to a general downward revision of one-half cent per gallon or more, it is indicated in refinery circles, as the major companies are unwilling to see their market get back into the chaotic state which characterized operations at times during the past year.

Lower prices for refined products, incidental to the recent reductions in crude oil quotations, have placed American export operators in a better competitive position abroad, and there has been some increase in business reported. Current prices enable American exporters to meet the price competition from both Rumania and Russia in certain markets where the latter have formerly enjoyed a sufficiently wide price differential to consistently undersell American refined products.

Refinery Gasoline

Leading refiners continue to post 5½ cents per gallon for the regular U. S. Motor grade, below 65 octane, and 5¾ cents per gallon for the high octane product, both in tank car lots, f.o.b. refineries or terminals. Some sellers were reported shading these prices by a quarter to a half cent per gallon, but the off-price material was not in as plentiful supply as has been the case in recent weeks, and more sellers were holding for the full posted prices.

Jobbing demand continues irregular, with marketers "shopping" the market thoroughly before placing their business. Distributors in most cases are still limiting purchases to actual requirements, being apprehensive over the price outlook for the remainder of the first quarter.

Comment in refining circles indicates that major interests are prepared to again cut their posted schedules should price cutting develop to as extensive a degree as was in evidence last month, and it is felt that this willingness to meet competition may have the effect of restraining the operations of the price cutting interests. Even at present low cargo prices at the Gulf, independent operations would not be in position to operate profitably in eastern tank car markets if prices for leading brands should again be cut. A market of 5 cents per gallon flat for regular U. S. Motor on the part of the major refiners, for example would force outside sellers down to 4½ cents to enable them to quote on a price basis, and even with cargoes available at the Gulf at 3¼ cents, handling charges and freight would be too high to enable the independent operators to market on an extensive scale at 4½ cents or lower.

Tank Wagon Gasoline

There has been an intensification of price cutting in retail sales in some parts of New York City, and major marketers are taking drastic steps to correct this situation. Third-grade gasoline is being used as the competitive weapon, and this grade can now be bought at the stations of some of the major companies at 10 gallons for $1, including the state tax of 3 cents per gallon and the Federal tax of 1 cent. This quotation, which figures out only 6 cents per gallon gross at the pump, and probably only 3½ to 4 cents per gallon gross for the marketer at the station, is expected to prove too low for successful competition, and a gradual diminution of competition from the price angle is looked for as soon as the price slashers realize the ability and willingness of the major marketers to meet them on common ground wherever necessary. While the resort to third grades here by the major marketers is contrary to the general inclination of the trade, it is believed to be but a temporary expediency, and only two or three of the larger companies are using this product.

Marketers distributing in New York state are up in arms over the recommendation of Governor Lehman for the imposition of a special tax of 1 cent per gallon on gasoline, with the revenues so derived to be used for general purposes by the state. This special tax, if adopted, will mean a state tax of 4 cents per gallon and a Federal tax of 1 cent, and will seriously threaten not only the earning power of companies distributing here but their gallonage as well. A still more serious consequence, major marketers believe, will be an intensification of gasoline bootlegging operations throughout the state.

Demand for gasoline during the week has been "just fair," marketers report. Cold weather has tended to restrict motoring somewhat, and the gallonage at retail stations fell off somewhat from the previous week's levels. Marketers continue to emphasize their regular grades, with premium gasoline coming in for relatively little attention.

No general price revisions were reported in East Coast territory during the week. Distributors are endeavoring to combat price competition with third grades, with resultant maintenance of posted price levels for regular brands, and thus far this policy is meeting with fair success.

Kerosene

The heavy volume on refinery kerosene continues as the outstanding feature of refined products markets in this area, and there was no letup in demand last week. Refiners continue to quote the market strong at 5½ cents per gallon, in tank car lots at refineries or terminals, and 6 cents is still being quoted for some deliveries.

Tank wagon kerosene gallonage was well maintained throughout the week, and prices held steady. Considerable quantities of California kerosene are moving into New England markets where demand this year has expanded in a manner little short of sensational, as a result of the heavy sales of distillate burners in that area during the past year.

Heating Oils

The refinery market continues active, with prices steady at 5 cents per gallon for 36-40 oil, 4 cents for 32-36, and 3½ cents for 21 industrial oil, all f.o.b. refineries or terminals, in tank cars.

Tank wagon prices for all grades of furnace oil remain unchanged in this territory, although some price shading is still reported on the heavier oils. The tank wagon situation, however, is showing signs of improvement as some of the localized price wars are beginning to die out.

Bunker Oil

Refiners in this area have shown no tendency to reduce bunker fuel oil prices and the market last week was reported as steady at 75 cents per barrel, bulk, at terminals, with a good movement reported.

There has been some increase in shipping operations reported locally, and contract withdrawals of furnace oil have consequently picked up.

Diesel Oil

Demand has been well maintained throughout the week, and the market is

(Continued on Page 34)

Exports and Imports of Refined Products; Receipts of California Oils in the East

NEW YORK, Feb. 6.—Several cargoes, or part cargoes, of 64-66 gasoline were reported closed at the Gulf during the week, but details surrounding prices and shipping time were lacking. The business was reported to have been closed with French buyers, at approximately current quoted price levels at the Gulf.

Considerable crude export business is still reported pending at the Gulf and two cargoes for France were reported sold at 65 cents, although these sales were not confirmed. Foreign buyers were endeavoring to line up cargoes at 64 cents, Gulf.

An inquiry for a cargo of 52,000 bbls. of 64-66 for first half April shipment to France was reported in the market at the close of the week.

Gulf suppliers were reported to have closed on a cargo of 60,000 bbls. of stabilized casinghead gasoline, for March loading for England, at 4⅜ cents, Gulf, although this sale was likewise lacking of confirmation.

Tanker charters of interest to American oil exporters closed during the week were as follows:

Steamer ——, 60,000 cases refined oils, Tampico to Brazil, 1s. 1d. per case with ½d. per case extra each additional port up to five. February loading.

Motorship Biscaya (German) 8,500 tons, clean, North Atlantic to United Kingdom/Continent, 7s. 3d., March loading.

Motorship Adria (German), 8,500 tons, dirty, Gulf to Bordeaux, 8s. 9d., prompt.

Motorship Sildra (Norwegian), 8,500 tons (part cargo) clean, Gulf to East Coast, United Kingdom or Continent, 8s. 6d., February loading.

Motorship Athelduke (British), 12,500 tons, dirty, one port California to two ports Japan, 21½ cents, May loading.

Petroleum Exports

The following table shows exports of principal refined petroleum products reported from the port of New York during the three weeks ended January 21 (all figures in gallons unless otherwise noted):

	Week ended		
	Jan. 28	Jan. 21	Jan. 14
Gasoline	348,000	30,000	30,000
Naphtha		78,000	
Kerosene	16,000	21,000	2,000
Fuel and gas oil	5,000	115,000	
Lubricating oil	1,935,000	2,240,000	770,000
Petroleum, ref'd.	560,000	195,000	168,000
	Pounds		
Petrolatum	5,000		130,000
Paraffin wax	2,590,000	2,425,000	2,495,000
Refined	95,000		
Scale	570,000	225,000	352,800
Lub. grease	1,075,000	505,000	795,000

There was a better export inquiry reported locally during the week, although buyers were still somewhat inclined to limit purchases to actual requirements, owing to the uncertainty of the price outlook.

Imports

Imports of crude and refined petroleum at the principal United States ports for the week ended January 28 totaled 671,000 bbls., a daily average of 95,857 bbls., compared with 1,329,000 bbls., or 189,857 bbls. daily for the previous week, and a daily average of 120,607 bbls. for the four weeks ended January 28. Details follow:

At Atlantic Coast Ports—	Bbls. of 42 gals.
Boston	68,000
New York	315,000
Philadelphia	223,000
Others	65,000
Total	671,000
Daily average	95,857

There were no imports at Gulf Coast ports during the week.

The week's imports comprised 382,000 bbls. of crude petroleum and 289,000 bbls. of fuel oil.

California Oil Receipts

Receipts of California crude and refined petroleum at Atlantic Coast ports during the week ended January 28 (there were no receipts at the Gulf) totaled 383,000 bbls., a daily average of 54,714 bbls., compared with 162,000 bbls., or 23,143 bbls. daily, for the previous week and a daily average of 40,750 bbls. for the four weeks ended January 28.

Of the week's total receipts, 81,000 bbls. came into New York and the remainder principally at New England ports. The week's shipments were made up of 185,000 bbls. of gasoline, 155,000 bbls. of kerosene, and 43,000 bbls. of fuel oil.

At the close of the week the following cargoes of California petroleum were reported afloat for East Coast ports:

For New York, 101,800 bbls. of furnace oil on the Standard-Vacuum tanker Comet.

For Sewaren, N. J., 117,000 bbls. of gasoline on the Sun Oil Co. tanker Mercury Sun.

For Philadelphia, 117,500 bbls. of gasoline on the Sun Oil Co. tanker Southern Sun.

For Tiverton, R. I., 75,000 bbls. of kerosene on the Union Oil Co. tanker Cathwood, and 78,000 bbls. of kerosene on the Associated Oil Co. tanker Tulsagas.

For Tiverton or Fall River, 80,000 bbls. of kerosene on the Standard Oil Co. of California tanker S.C.T. Dodd.

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

EXCLUSIVE OF TAXES

The following quotations are exclusive of the Federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils, which became effective June 21, 1932.

Refinery Gasolines

OKLAHOMA (Group 3)—	Feb. 7		Jan. 31	
*U. S. Motor grades:				
Regular	.02⅜	.02⅝	.02⅝	.02⅞
Premium	.02⅝	.02⅞	.02⅞	.03⅛
Third grade	.02⅛	.02⅝	.02¼	.02½
60-62 400 grades:				
Regular	.02½	.02¾	.02¾	.03
Premium	.02¾	.03	.03	.03¼
Third grade	.02¼	.02½	.02⅝	.02⅞
64-66 390	.02½	.02¾	.02⅝	.02⅞
64-66 375	.02¾	.03	.02⅞	.03
68-70 350	.03	.03¼	.03⅛	.03½
NORTH TEXAS—				
U. S. Motor grades:				
Regular	.02⅜	.02½	.02½	.02⅝
Premium	.02⅝	.02⅞	.02⅝	.03
Third grade	.02⅛	.02¼	.02⅛	.02⅝
60-62 400	.02¼	.02½	.02¼	.02½
64-66 390	.02½	.02⅝	.02½	.02⅝
64-66 375	.02¾	.03	.02⅝	.03
64-66 380	.03	.03¼	.03	.03¼
†NORTH LOUISIANA—				
U. S. Motor grades:				
Regular	.03		.03⅛	
Premium	.03¼		.03½	
Third grade	.02¾		.02⅝	.03
60-62 400	.03		.03¼	.03½
†ARKANSAS—				
U. S. Motor grades:				
Regular	.03		.03⅛	
Premium	.03¼		.03½	
Third grade	.02¾		.02⅝	
CHICAGO (Based on Oklahoma Group 3)—				
U. S. Motor grades:				
Regular	.02⅜	.02⅝	.02½	.02⅝
Premium	.02⅝	.03	.02⅝	.03⅛
Third grade	.02⅛	.02⅜	.02¼	.02⅜
60-62 400	.02¼	.02½	.02½	.02⅝
64-66 375	.02¾	.03	.02⅝	.03
68-70 360	.03⅛	.03¼	.03⅛	.03⅜
Aviation fighting grade	.03⅜	.03⅝	.03½	.03¾

*Octane Ratings—The following octane ratings apply to the three grades of U. S. Motor gasoline: Regular, 57-65 octane numbers; premium, above 65 octane number; third grade, below 57 octane number.

†For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
U. S. Motor	.05	.05¼	.05⅛	.05⅜
60-62 400	.05⅛	.05¼	.05¼	.05½
64-66 375	.05½	.06	.05⅝	.06
68-70 350	.05⅝	.06	.06	.06¼
CALIFORNIA (domestic movement only)—				
54-58 U. S. Motor	.05¼	.06¼	.05½	.06¼
58-60 400	.05¾	.06¾	.06	.07
EAST COAST—				
U. S. Motor, below 65 octane:				
New York (Bayonne)	.05½		.05½	
Boston	.05½		.05½	
Baltimore, Md.	.05½		.05½	
Charleston, S. C.	.05½		.05½	
U. S. Motor, 65 octane and above:				
New York (Bayonne)	.05¾	.06	.05¾	.06
Boston	.05¾		.05¾	
Baltimore, Md.	.05¾		.05¾	
Charleston, S. C.	.05¾		.05¾	
GULF COAST (domestic)—				
U. S. Motor, 65 octane and above	.03¾	.04	.03¾	.04
U. S. Motor, below 65 octane number	.03¼	.03½	.03¼	.03½

Naphthas

OKLAHOMA (Group 3)—	Feb. 7		Jan. 31	
50-52 45) (blending)	.02	.02¼	.02¼	.02½
PENNSYLVANIA (inland refineries)—				
50-54 430-450 (blending)	.04⅞	.05	.05	.05⅛
ARKANSAS—				
48-50 450 (blending)	.02½	.02¾	.02¾	.03
CHICAGO (Based on Oklahoma Group 3)—				
50-52 (blending)	.02⅛	.02⅝	.02¼	.02⅝
Cleaners' naphtha, 50-58 gr., 200 i.b.p.-320 e.p.	.05½	.05¾	.05¾	.06
Lacquent diluent, 180 i.b.p.-250 e.p.	.06¾	.07	.07	.07¼
Lacquer diluent, 140 i.b.p.-200 e.p.	.08½		.08½	
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.05½	.05¾	.05¾	.06
Stoddard solvent, 300 i.b.p.-410 e.p., over 100° flash	.05	.05¼	.05¼	.05½
Pet. thinner, 290, 300 i.b.p.-415 e.p., over 83° flash	.04¼	.04½	.04½	.04¾
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.05¼	.05½	.05½	.05¾
Petroleum spirits	.04	.04¼	.04¼	.04½

Natural Gasolines

OKLAHOMA (Group 3)—	Feb. 7		Jan. 31	
Grade 18-55	.02½		.02½	.02⅝
Grade 26-70	.02		.02	
Grade 3 -70	.01⅞		.01⅞	.02
*Low pressure grades:				
15 lb. v.p. (max.)	.02⅝	.02¾	.02⅝	.02¾
11 lb. v.p. (max.)	.02¾	.03	.02¾	.03
NORTH TEXAS—				
Grade 18-55	.02⅜		.02⅜	.02½
Grade 26-70	.02		.02	
Grade 30-70	.01⅞		.01⅞	
*Low vapor pressure grades:				
15 lb. v.p. (max.)	.02⅝		.02¾	
11 lb. v.p. (max.)	.02¾		.03	
NORTH LOUISIANA—				
Grade 26-70	.02¼	.02⅜	.02¼	.02⅜
CALIFORNIA—				
75-78 375	.04½	.05¼	.04½	.05¼

Kerosenes

(All kerosenes water white)

OKLAHOMA (Group 3)—	Feb. 7		Jan. 31	
41-43	.02¾	.03	.02⅞	.03¼
42-44	.02⅞	.03⅛	.03	.03½
NORTH TEXAS—				
40-41	.02⅝		.02¾	.02⅞
41-43	.02⅞	.03	.02⅞	.03
†NORTH LOUISIANA—				
41-43	.03½		.03½	.03¾
42-44	.03¾		.03¾	.04
†ARKANSAS—				
41-43	.03½	.03¾	.03½	.03¾
PENNSYLVANIA (inland refineries)—				
45	.04½	.04¾	.04⅝	.04¾
46	.04⅝	.04¾	.04¾	.04⅞
47	.04¾	.05	.04¾	.05
CHICAGO (Based on Oklahoma Group 3)—				
41-43	.02⅝	.02¾	.02⅞	.03
42-44	.02¾	.02⅞	.03⅛	.03¼
*CALIFORNIA—				
38-40 high burning test	.03½	.04½	.03¾	.04½
NEW YORK (Bayonne, N. J.)—				
41-43	.05½	.06	.05½	.06
GULF COAST (domestic)—				
41-43 water white	.04¼	.04½	.04¼	.04½

*For Pacific Coast consumption.

†For Arkansas, Louisiana and Mississippi delivery.

Furnace Oils and Tractor Fuels

OKLAHOMA (Group 3)—	Feb. 7		Jan. 31	
32-36 straw	.02⅜	.02⅝	.02⅜	.02⅝
36-38 straw	.02⅝	.02⅞	.02½	.02¾
38-40 straw	.02⅝	.02⅞	.02½	.02¾
39-41 prime	.02⅝	.02⅞	.02½	.02¾
NORTH TEXAS—				
38-40 straw	.02¼	.02½	.02⅜	.02⅝
†NORTH LOUISIANA—				
36-40	.02¾	.03	.03	.03¼
†ARKANSAS—				
32-36	.02¾	.03	.03	.03¼
CHICAGO (Based on Oklahoma Group 3)—				
32-36 straw	.02½	.02⅝	.02⅝	.02¾
38-40 straw	.02½	.02¾	.02¾	.02⅞
38-40 prime white	.02½	.02¾	.02¾	.02⅞
PENNSYLVANIA (inland refineries)—				
40-41 prime white	.03½	.04	.03¾	.04
NEW YORK (Bayonne, N. J.)—				
32-36	.04		.04	
36-40	.05		.05	
21 (industrial)	.03½		.03½	

Above prices are for distillate oils of zero cold test under 190° F. flash and good odor.

†For Arkansas, Louisiana and Mississippi delivery.

Gas Oil, Diesel Oil and Fuel Oil

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

OKLAHOMA (Group 3)—	Feb. 7		Jan. 31	
32-36 (G.O.) cracking stock	.01½	.01¾	.01½	.01¾
U.G.I. (G.O.)	.01½	.01¾	.01½	.01¾
32-36 zero to 15 (G.O.) high flash	.02	.02¼	.02½	.02¼
28-30, zero to 10	.85	1.00	.85	1.00
26-30, zero to 10	.75	.85	.75	.80
24-26	.60	.65	.60	.65
20-22	.50	.55	.50	.55
Below 16	.37½	.45	.40	.45
NORTH TEXAS—				
32-36 (G.O.) industrial	.01⅜	.01½	.01⅜	.01½
22-26	.45	.50	.45	.50
Below 20	.40	.45	.40	.45
NORTH LOUISIANA—				
32-36 (G.O.) zero	.02½	.02¾	.03	
14-16	.35		.45	
†ARKANSAS—				
30-32 (G.O.) zero high flash	.02½	.02⅝	.03	
14-16	.35	.40	.45	
CHICAGO (Based on Oklahoma Group 3)—				
32-36 (G.O.) industrial	.01½	.01⅝	.01¾	.01⅞
28-30 (zero)	.90	.97½	.95	1. 0
26-28 (zero)	.75	.80	.85	.90
22-26 (zero)	.60	.65	.60	.65
18-22 (zero)	.50	.55	.50	.55
Below 18	.45	.50	.45	.50
PENNSYLVANIA (inland refineries)—				
36-40	.03	.03¼	.03¼	.03½

Note: Fuel oils of more than 40 cold test generally 5 to 10 cents per barrel less in all areas than shown in above tables.

†For Arkansas, Louisiana and Mississippi delivery.

CALIFORNIA—				
30-34 (G.O.) per bbl.	.85	1.00	.85	.95
27 plus Diesel	.85	1.00	.85	.95
15-19 bunker (at tidewater)	.55	.65	.55	.65
15-19 (cargo lots)	.47½	.60	.50	.60
15-19 (tank cars)	.35	.55	.35	.55
GULF COAST—				
28-30 (G.O.)	.03¼		.03¼	
28-30 Diesel	1.50	1.55	1.50	1.55
Bunker C (bulk cargoes)	.50		.50	
Bunker C (bunkers)	.60		.60	
NEW YORK (Bayonne, N. J.)—				
28 plus (G.O.)	.03¾	.04	.03¾	.04
*28-30 Diesel	1.65		1.65	
26-30 Diesel (tank cars)	.04		.04	
†Bunker C	.75		.75	

*Lighterage 6½ cents per barrel.

†Lighterage 5 cents per barrel.

Petroleum Coke*

Prices per ton f.o.b. refineries in Chicago area.

Breeze (screenings)	4.50	5.50
Still runs	5.50	6.50
Lump and egg	6.50	7.50

*Refineries will absorb freight to 80 cents a ton.

Neutral Oils

(Viscosity at 100° F. and color)

OKLAHOMA (Group 3)—	Feb. 7		Jan. 31	
Zero to 10 Cold Test:				
150-3	.06¼	.06½	.06¼	.06½
180-3	.07½	.07¾	.07½	.07¾
180-4	.07	.07¼	.07	.07¼
200-3	.08¼	.08½	.08¼	.08½
20 -4	.08	.08¼	.08	.08¼
240-3	.09¾	.10	.09¾	.10
240-4	.09¼	.09½	.09¼	.09½
280-3	.11¼	.11½	.11¼	.11½
280-4	.10¼	.10½	.10¼	.10½
300-3½	.11¾	.12	.11¾	.12
350-3½	.12¼	.12½	.12¼	.12½
4 0-4	.12¾	.13	.12¾	.13
500-4½	.13	.13½	.13	.13½
100-2 paraffin oil	.04¼	.04½	.04¼	.04½
15-30 Cold Test:				
200-3	.07½	.07¾	.07½	.07¾
200-4	.07¼	.07½	.07¼	.07½
240-3	.09¼	.09½	.09¼	.09½
240-4	.08¾	.09	.08¾	.09
280-3	.10¾	.11	.10¾	.11
280-4	.09¾	.10	.09¾	.10
PENNSYLVANIA—				
150 vis., No. 3, 400-405:				
Zero pour test	.11¼	.12	.11¾	.12
10 pour test	.10¾	.11¼	.11¼	.11¾
15 pour test	.09¼	.10	.10	.10½
25 pour test	.08¼	.09	.09	.09½
180 vis., No. 3, 25 pour test	.10¾	.11¾	.12	.12½

200 vis., No. 3:				
Zero pour test	.16½	.17	.18	.19
10 pour test	.14½	.16	.17	.18
15 pour test	.12½	.14	.16	
25 pour test	.11½	.13½	.13½	.14
30 pour test	.11		.13	
GULF COAST—				
Pale Oils:				
100-2-2½	.05¼	.05½	.05¼	.05½
200-3	.06½		.06½	
300-3	.07¼	.07½	.07¼	.07½
500-3½	.09¼	.09½	.09¼	.09½
750-3½	.10¼	.10½	.10¼	.10½
1,200-3½	.12½		.12½	
2,000-4	.13½	.14	.13½	.14
Red Oils:				
200-5-6	.05¼	.05½	.05¼	.05½
300-5-6	.06½	.06¾	.06½	.06¾
500-5-6	.07½	.07¾	.07½	.07¾
1,200-5-6	.10½	.11	.10½	.11
2,000-6 plus	.12¼	.12½	.12¼	.12½
CALIFORNIA—				
Pale Oils:				
100-2½-3	.09	.10	.09	.10
200-2½-3	.10	.11	.10	.11
300-3-3½	.11	.11½	.11	.11½
350-3-4	.11½	.11¾	.11½	.11⅞
400-3-4	.11¾	.12	.11¾	.12
450-3-4	.12	.12¼	.12	.12¼
550-3-4	.12¼	.12¾	.12¼	.12¾
Red Oils:				
200-4-5	.08¾	.09¼	.08¾	.09¼
300-5-6	.10	.10½	.10	.10½
350-5-6	.10½	.11	.10½	.11
400-5-6	.11	.11½	.11	.11½
450-5-6	.11½	.11¾	.11½	.11¾
500-5-6	.11¾	.12	.11¾	.12
600-5-6½	.12	.12¼	.12	.12¼
700-6½ plus	.12¼	.12½	.12¼	.12½
750-6½ plus	.12½	.12¾	.12½	.12¾
900-6½ plus	.13	.14½	.13	.14½

Bright and Steam Refined Stocks

	Feb. 7		Jan. 31	
OKLAHOMA (Group 3)—				
630 light green	.07¾	.08	.07¾	.08
600 light green S.R.	.05	.06	.05	.06
600 dark green S.R.	.04	.04½	.04	.04½
Bright Stocks:				
190-200 D	.17½		.17½	
150-160 D, 0-10	.15½		.15½	
150-160 D, 10-25	.15		.15	
150-160 D, 25-40	.14½		.14½	
150-160 E	.14½		.14½	
PENNSYLVANIA—				
600 S.R.	.08½	.09	.09½	.10½
650 S.R.	.11½	.12	.12	.13
600 Pennsylvania flash	.12¾	.13	.13½	.14
63 D filtered	.17¾	.18¼	.18½	.19
600 E filtered	.12¾	.13½	.13½	.14½
Pennsylvania Grade bright stock:				
Bright Stock, No. 8 color, 145-50 vis. 210-540-550 flash:				
10 pour test	.21	.22½	.21	.22½
15 pour test	.19½	.20½	.19½	.20½
25 pour test	.18	.19	.18	.19

Wax and Petrolatum

Prices per pound)

	Feb. 7		Jan. 31	
OKLAHOMA (Group 3)—				
124-126 white crude scale	.01⅞	.02	.01⅞	.02
PENNSYLVANIA—				
122-124	.02⅛		.02⅛	
124-126	.02⅛	.02¼	.02⅛	.02¼
NEW YORK (Bayonne, N. J.)—				
120-122	.02⅜		.02⅜	
125-127	.02¾		.02¾	
130-132	.03⅛		.03⅛	
133-135	.04		.04	
135-137	.04¼		.04¼	
Petrolatum in barrels in carload lots:				
Dark green	.01¾		.01¾	
Amber	.02⅛		.02⅛	
Extra amber	.02½		.02½	
Lily white	.05½		.05½	
Snow white	.06½		.06½	
Cream	.04⅝		.04⅝	

Export Prices

	Feb. 7		Jan. 31	
GASOLINE				
GULF COAST—				
U. S. Motor	.03⅝		.03⅝	
60-62 400	.03⅞		.03⅞	
61-63 390	.03⅞		.03⅞	
64-66 375	.03⅞	.04	.03⅞	.04
LOS ANGELES, CALIF.—				
U. S. Motor, 53-55 437 e.p.	.03¾	.04¼	.03¾	.04¼
U. S. Motor, 65 octane num.	.04¾	.05	.04¾	.05
U. S. Motor, 67 octane num.	.05¼		.05¼	
U. S. Motor, 69 octane num.	.05½		.05½	
58-60 400 endpoint gasoline	.04¼	.05	.04¼	.05
KEROSENE				
GULF COAST—				
41-43 prime white	.04¼	.04⅜	.04¼	.04⅜
41 water white	.04½	.04⅝	.04½	.04⅝
LOS ANGELES, CALIF.—				
41-43 water white	.03¾	.04¼	.03¾	.04¼
LUBRICANTS				
NEW YORK (f.a.s. in bbls.)—				
600 filtered	.22		.22	
600 Warren E	.19		.19	
600 S.R. unfiltered	.15		.15½	
630 S.R. unfiltered	.17		.17½	
600 flash S.R.	.18½		.18½	
630 flash S.R.	.23½		.23½	
Bright stock, No. 8 color	.23½		.23	
Bright stock, No. 6½ color, dil.	.24		.23½	
NEUTRALS				
NEW YORK—Pale Engine Oil, Bulk (vis. at 100)—				
230-3¾	.09¾		.09¾	
180-3½	.09½		.09½	
100-2¼	.05		.05	
Red Engine Oil, Bulk (vis. at 100):				
300-6½	.09½		.09½	
250-6	.08¾	.09	.08¾	.09
200-6	.08¼		.08¼	

Crude Oil Prices

Oklahoma, Kansas, North and East Central Texas

East Texas (see note) .....$ .50
Corsicana, heavy (Jan. 20, 1933)* .... .30
Other fields .....See gravity table

East Texas posted by Tide Water Oil Co., January 18; Sinclair Prairie Oil Marketing Co., January 18; The Texas Company, January 20; Magnolia Petroleum Co., January 20; Shell Petroleum Corp. January 19; Panola Pipe Line Co., January 20; Humble Oil & Refining Co., January 20.
*Magnolia Petroleum Co.

West Texas

Iatan and Westbrook..Same as North Texas
Crane, Upton, Crockett, Howard, Glasscock, Mitchell, Ector, Winkler and Pecos Counties .....See note below
Lea County, N. Mex. .....
.....See Rocky Mountain table
Toborg, Pecos County* .....$ .40

Note—Crane, Upton, etc., effective January 19 by The Texas Company, 30 cents; followed by Humble Oil & Refining Co., Magnolia Petroleum Co., Gulf Pipe Line Co., on January 20, and by other purchasers.
*Shell Petroleum Corp., January 19, 1933.

Texas Panhandle

Gray County, Wheeler County and Carson-Hutchinson Counties....See gravity table

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers .....
.....See gravity table
Jennings, La. (Jan. 20, 1933)* .....$ .35
Cameron Meadows, La. (Jan. 20, 1933)†
.....Below 20 gravity 22 cents, differential 2 cents per degree beginning with 21-21.9 at 26 cents with 40 gravity and over at 52 cents.
Refugio, light .....See gravity table
Refugio, heavy (Jan. 20, 1933)‡ 45
Markham§..See Gulf Coast gravity schedule
High Island¶ .....
.....See Gulf Coast gravity schedule
Conroe .....See note

*Gulf Refining Co. †Magnolia Petroleum Co. ‡Humble Oil & Refining Co. §The Texas Company. ¶Yount Lee Pipe Line Co.

Note—In the Conroe Field, effective January 19, Tide Water Oil Co. posted as follows: 35-35.9 degrees, 59 cents, with 1 cent added for each degree upward to 40 degrees and over, at 64 cents; January 20, Humble Oil & Refining Co. posted 35-35.9 degrees, 64 cents, with 2 cents added for each degree upward to 40 degrees and over at 64 cents.

South Central and Southwest Texas

Darst Creek .....See note below
Luling (Jan. 20, 1933) .....$ .30
Mirando (Jan. 20, 1933) ..... .35
Pettus (Jan. 20, 1933) ..... .55
Salt Flat (Jan. 20, 1933) ..... .40
Lytton Springs (Jan. 20, 1933) ..... .45

Note—The Texas Company, January 19, followed by Humble Oil & Refining Co., Magnolia Petroleum Co. and Gulf Pipe Line Co., January 20. Magnolia Petroleum Co. in Luling; Magnolia, Humble and Gulf companies in Refugio crude; Humble and Gulf companies in Pettus; Humble and Gulf companies in Salt Flat; Magnolia Petroleum Co. in Lytton Springs. In Darst Creek, effective January 19, The Texas Company, 35 cents; effective January 20, Magnolia Petroleum Co., 35 cents; Humble Oil & Refining Co., 40 cents; Gulf Pipe Line Co., 40 cents.

North Louisiana and Arkansas

Smackover, Ark. (all grades) .....
.....See note below
Urania, La. (Jan. 20, 1933) .....$ .25
East El Dorado, Ark. (Jan. 20, 1933)
.....See note below
Other fields .....See gravity table

Note—Smackover, all grades, effective January 19 by The Texas Company, 30 cents; January 20, Standard Oil Co. of Louisiana, 20 cents, Magnolia Petroleum Co. 20 cents, Gulf Refining Co. 30 cents, Louisiana Oil Refining Corp. 25 cents. Urania Field posted by Louisiana Oil Refining Co. and H. L. Hunt, Inc., East El Dorado, effective January 20, Magnolia Petroleum Co. 20 cents, Gulf Refining Co. 30 cents.

Rocky Mountain States

OHIO OIL CO.-STANOLIND OIL & GAS CO.
Iles, light (Jan. 18, 1933) .....$ .40
Iles, heavy (Jan. 18, 1933) ..... .34
Fort Collins, Wellington and Greasewood, Colo., are on contract basis.
Florence (Jan. 18, 1933) ..... .32
Dutton Creek, Wyo. (Jan. 18, 1933) .. .34
Rock Creek, Wyo. (Jan. 24, 1933) ..... .46
Frannie, light (Jan. 18, 1933) ..... .31
Frannie, heavy (Jan. 18, 1933) ..... .20
Salt Creek .....
See Stanolind Mid-Continent price schedule
LaBarge .....Mid-Continent gravity scale
Big Muddy (Jan. 24, 1933) ..... .50
Grass Creek (Jan. 18, 1933) ..... .62
Grass Creek heavy (Dec. 15, 1932) .. .45
Elk Basin, light (Jan. 18, 1933) ..... .62
Lance Creek (Dec. 16, 1932) ..... .92
Poison Spider (Mar. 5, 1931) ..... .70
Hudson (June 2, 1931) ..... .65
Lander (Mar. 5, 1921) ..... .40
Rex Lake (Feb. 22, 1930) 1.10
Osage (Jan. 18, 1933) ..... .52
Lost Soldier (Apr. 12, 1932) ..... .80
Hamilton Dome (Dec. 16, 1932) ..... .25
Torchlight (Jan. 18, 1933) ..... .62
Greybull (Jan. 18, 1932) ..... .62
Cat Creek (Jan. 18, 1933) ..... .62
Pondera (Nov. 7, 1932) ..... .60
Sunburst, Mont. (Nov. 7, 1932) ..... .75
Hogback, N. Mex. (Jan. 18, 1933) ..... .65
Lea County, N. Mex. (Jan. 20, 1933) .. .30
Maljamar (Jan. 20, 1933) ..... .25
Artesia-Jackson (Jan. 20, 1933) ..... .30

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull, Hogback, and Iles by Stanolind Oil & Gas Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective January 20, posted by Humble Oil & Refining Co. Fort Collins, Wellington, Orchard, Florence, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro Oil & Refining Co.

Eastern States

JOSEPH SEEP PURCHASING AGENCY
(Effective January 21, 1933)
Pennsylvania Grade Oil in National Transit Lines (Bradford Field) $1.47

(Continued on Page 31)

Crude Oil Gravity Table

Degrees gravity—	Oklahoma, Kansas, North Texas, East Central and Central Texas 1	North Louisiana and Arkansas 2	North Louisiana and Arkansas 3	Gray County, Texas 4	Gray County, Texas 5	Hutchinson, Carson and Moore Counties, Texas 6	Hutchinson, Carson and Moore Counties, Texas 7	Gulf Coast Texas and Louisiana 8	Gulf Coast Texas and Louisiana 9	Salt Creek, Wyoming 10
Below 20	...	...	...	...	...	...	...	.55	.32	...
20-20.9	...	...	...	...	...	...	...	.55	.34	...
21-21.9	...	...	...	...	...	...	...	.55	.36	...
22-22.9	...	...	...	...	...	...	...	.56	.38	...
23-23.9	...	...	...	...	...	...	...	.57	.40	...
24-24.9	...	...	...	...	...	...	...	.58	.42	...
Below 25	...	...	...	...	...	...	...	...	...	...
25-25.9	...	...	...	...	...	...	...	.59	.44	...
26-26.9	...	...	...	...	...	...	...	.60	.46	...
27-27.9	...	...	...	...	...	...	...	.61	.48	...
28-28.9	...	...	...	...	...	...	...	.62	.50	...
Below 29	.28	.28	.20	...	...	...	...	...	...	.28
29-29.9	.30	.30	.22	...	...	...	...	.62	.52	.30
30-30.9	.32	.32	.24	...	...	...	...	.64	.54	.32
31-31.9	.34	.34	.26	...	...	...	...	.65	.56	.34
32-32.9	.36	.36	.28	...	...	...	...	.66	.58	.36
33-33.9	.38	.38	.30	...	...	...	...	.67	.60	.38
34-34.9	.40	.40	.32	.36	.34	.31	.29	.68	.62	.40
35-35.9	.42	.42	.34	.38	.36	.33	.31	.69	.62	.42
36-36.9	.44	.44	.36	.40	.38	.35	.33	.70	.62	.44
37-37.9	.46	.46	.38	.42	.40	.37	.35	.71	.62	.46
38-38.9	.48	.48	.40	.44	.42	.39	.37	.72	.62	.46
39-39.9	.50	.50	.42	.46	.44	.41	.39	.73	.62	.50
40 plus	.52	.52	.44	.48	.46	.43	.41	.74	.62	.52

Note—Effective January 20, the Standard Oil Co. of Louisiana posted the following prices in North Louisiana and Arkansas: Caddo, below 29 gravity, 20 cents; 40 gravity and above, 44 cents. Sabine and De Soto, below 29 gravity, 25 cents; 40 gravity and above, 49 cents. Homer, below 29 gravity, 28 cents; 40 gravity and above, 52 cents. Sarepta and Cartersville, below 29 gravity, 17 cents; 40 gravity and above, 41 cents. El Dorado, below 29 gravity, 25 cents; 40 gravity and above, 49 cents. Haynesville, below 29 gravity, 19 cents; 40 gravity and above, 43 cents. The above all carry 2 cents differential for each degree in gravity. Smackover, all grades, 20 cents.

Column 1—Effective January 18, Stanolind Crude Oil Purchasing Co., Sinclair Prairie Oil Marketing Co.; January 19, The Texas Company; January 20, Magnolia Petroleum Co. (starting at below 25 degrees, 20 cents, with 2 cents added for each degree upward); January 20, Carter Oil Co. in Oklahoma and Kansas and Humble Oil & Refining Co. in North Central and East Central Texas; January 20, Gypsy Oil Co. in Oklahoma and Kansas and Gulf production Co. in North, Central and East Central Texas; January 18, Globe Oil & Refining Co. and Tide Water Oil Co. in Kansas and Oklahoma; January 19, Empire Pipe Line Co., Shell Petroleum Corp.; January 18, in Oklahoma, Deep Rock Oil & Refining Co., Barnsdall Refineries, Inc., Continental Oil Co., Bell Oil & Gas Co., Tide Water Oil Co., Champlin Refining Co., Anderson-Prichard Corp., Cushing Refining Co., Eason Oil Co., Johnson Oil Refining Co., Mid-Continent Petroleum Corp., Pepper Gasoline Co., Sunray Oil Co., Yale Oil Corp., Twin State Oil Co., Rock Island Refining Co.; January 20, Philtex Oil Co. and Pure Oil Co.; Oklahoma and North Texas, January 18, Continental Oil Co.; Kansas, January 18, Eldorado Refining Co., Vickers Petroleum Co., Skelly Oil Co. (starting below 25 degrees, 20 cents, with 2 cents added for each degree upward); January 19, White Eagle Oil Corp.

Column 2—The Texas Company, January 19; Louisiana Oil Refining Co., January 20; Gulf Refining Co., January 20 (starting at below 25 degrees, 20 cents, with 2 cents added for each degree upward). For Standard Oil Co. of Louisiana schedule see note below price table.

Column 3—Magnolia Petroleum Co., January 20.

Column 4—The Texas Company, January 19.

Column 5—Effective January 20, Humble Oil & Refining Co., Magnolia Petroleum Co., Gulf Pipe Line Co. Effective January 20, Phil Tex Oil Co. posted below 36 degrees, 30 cents, with 2 cents added for each degree up to 40 and above at 40 cents.

Column 6—The Texas Company, January 19.

Column 7—Effective January 20, Humble Oil & Refining Co., Magnolia Petroleum Co., Continental Oil Co. and Gulf Pipe Line Co. Effective January 20, the Phil Tex Oil Co. posted below 36 degrees, 20 cents, with 2 cents added for each degree upward to 40 degrees and above, 30 cents.

Column 8—The Texas Company, January 19.

Column 9—The Humble Oil & Refining Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Sun Oil Co., January 20.

Column 10—Stanolind Oil & Gas Co., January 18.

(California Crude Oil Prices on Page 31)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

February 7, 1933

Taxes

The gasoline quotations given in the following tables include the 1-cent Federal tax as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third or competitive grade is generally available at 1.5 or more cents per gallon under the service station price for the regular grade. Ethyl Gasolines are sold 3 cents above the service station price for the regular grade.

Standard Oil Co. (Indiana)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Chicago	14.1	14.1	4.0	10.0
Decatur, Ill.	15.6	15.6	4.0	10.1
E. St. Louis	14.9	12.9	4.0	9.2
Joliet	15.6	14.6	4.0	8.6
Peoria	15.6	15.6	4.0	10.1
Quincy	15.4	15.4	4.0	9.9
Davenport, Ia.	15.7	15.7	4.0	10.4
Des Moines	15.7	15.7	4.0	8.0
Mason City	15.7	15.7	4.0	9.0
Sioux City	15.3	15.3	4.0	10.0
Duluth, Minn.	16.7	16.7	4.0	11.0
Mankato	16.3	16.3	4.0	8.1
Minneapolis	15.4	14.4	4.0	11.0
LaCrosse, Wis.	17.4	17.4	5.0	11.1
Green Bay	16.8	16.8	5.0	10.5
Milwaukee	16.3	16.3	5.0	10.0
Madison	16.5	16.5	5.0	10.2
Detroit, Mich.	15.0	15.0	4.0	9.0
Grand Rapids	15.6	15.6	4.0	10.3
Saginaw	15.3	15.3	4.0	10.3
Evansville, Ind.	16.2	16.2	5.0	†12.9
Indianapolis	16.4	16.4	5.0	†14.1
South Bend	16.7	16.7	5.0	†14.4
Fargo, N. D.	18.1	18.1	4.0	12.0
Huron, S. D.	17.5	17.5	5.0	11.8
Sioux Falls	17.0	17.0	5.0	10.0
K. C., Mo.*	14.1	14.1	4.0	8.7
Springfield*	15.0	15.0	4.0	8.0
St. Louis	12.5	12.0	4.0	9.4
St. Joseph*	13.0	9 9	4.0	7.5
Wichita, Kans.	13.9	13.9	4.0	7.0
Bartlesville, Ok.	13.5	16.0	5.0	8.0

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

†Includes 4-cent tax. Buyers of kerosene not used as motor fuel can secure refund of tax.

Effective November 4—New dump discount applicable on all grades of gasoline sold from tank wagon. Any tank wagon customer buying 25 gallons or more at one time will be given 1-cent discount per gallon off tank wagon price at time of delivery. Customers not under contract receive no other discount.

Effective January 1—Discounts on Q.D.A. on 500 gallons or more per month throughout territory; Red Crown Ethyl Gasoline, 3 cents off tank wagon price; Red Crown gasoline, 2½ cents off tank wagon price; Stanolind Blue gasoline, 1 cent off tank wagon price. On deliveries of 75,000 gallons or more each classification allowed 1 cent additional discount.

Discounts on resellers authorized agent's agreement: Same amounts as above except made off service station price instead of tank wagon price.

Stanolind Furnace Oil in Chicago

Effective November 1, 1932, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), 100 gallons or more, 7 cents; No. 2 (30-34 stw. zero), 150 gallons or more, 4½ cents; No. 3 (32-36 zero), 400 gallons or more 5.75 cents; No. 4 (12-16 zero), 400 gallons or more, 4.75 cents. Viscosity of No. 4, 90-115 at 100° F.

Fuel Oils

Chicago Oil Heat Institute Prices

Spot market prices on 350 gallons or over deliveries, and top prices on contracts, respectively; 33-40, 7 and 3 cents; 32-36 light, 6⅞ and 7⅝ cents; 32-36 dark, 6⅛ and 7⅛ cents; 28-30, 5⅞ and 6⅝ cents; 24-26, 5 and 6 cents; 18-22, 4⅝ and 5⅝ cents. On deliveries of less than 350 gallons the spot price is one-half cent higher.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Dallas, Tex.	13.5	15.0	5.0	7.0
Fort Worth	13.5	15.0	5.0	7.0
Houston	13.5	15.0	5.0	8.0
San Antonio	13.5	15.0	5.0	8.0
El Paso	13.5	15.0	5.0	10 0
Texarkana	*15.0	15.0	5.0	†11.0
Muskogee, Okla.	11.5	14 0	5 0	8 0
Okla. City	11.5	14.0	5.0	8.0
Tulsa	12.5	15 0	5.0	8 0
Ft. Smith, Ark.	*13.0	13.0	5.0	†10.0
Little Rock	15.0	15.0	7.0	†10.0

*Less 2½ cents to dealers. †Less 2 cents to dealers.

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atlanta, Ga.	15.0	15.0	7.0	12.0
Augusta	19.0	19.0	7.0	11.0
Macon	19.0	19.0	7.0	11.0
Savannah	19.0	19.0	7.0	12.5
Birm'ham, Ala.	19.0	19.0	8.0	12.0
Mobile	20.0	20.0	8.0	10.0
Montgomery	19.0	19.0	8.0	14 0
Jackson, Miss.	18.0	18.0	7.0	11.0
Vicksburg	19.0	19.0	7.0	13.0
Jack'ville, Fla.	21.0	21 0	8 0	11 0
Miami	21.0	21 0	8.0	12.5
Pensacola	18.0	18.0	8.0	12.0
Tampa	19 0	19 0	8.0	13 0
Lexington, Ky.	18.5	16.5	6.0	11.5
Covington	17.0	17.0	6.0	11.5
Louisville	17.0	17.0	6.0	10.0
Paducah	19.0	19.0	6.0	10.0

A third grade "Kyso Green" is sold at a price generally 2 cents below the price on the regular grade.

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline. To Pensacola, Montgomery and Birmingham state taxes add 1-cent tax. To Mobile state tax add 1-cent city tax. Dealers receive discount of 3 cents off tank wagon price throughout territory.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Denver, Colo.	14.0	17.0	5.0	12.5
Pueblo	14.0	17.0	5.0	12.5
Grand Junctn.	18.0	21.0	5.0	14.5
Casper, Wyo.	16.0	19.0	5.0	10.0
Cheyenne	14.0	17.0	5.0	11.5
Butte, Mont.	20.0	23.0	6.0	17.0
Billings	21.0	24.0	6.0	15.5
Great Falls	21.0	24.0	6.0	17.0
Helena	21.0	24.0	6.0	17.0
Salt Lake, Utah	17.0	20.0	5.0	15.0
Albu'que, N. M.	14.0	17.0	*7.0	14.0
Boise, Idaho	20.5	23.5	6.0	15.0
Twin Falls	20.5	23.5	6.0	15.0

*One-cent city tax.

Central South District

STANDARD OIL CO. (LOUISIANA)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
N. Orleans, La.	15.0	15.0	*7.0	†11.0
Baton Rouge	14.5	14.5	6.0	†11.0
Alexandria	13.0	13.0	7.0	†8.5
Lafayette	14.5	14.5	7.0	†10.0
Lake Charles	14.5	14.5	7.0	†10.0
Shreveport	13.5	13.5	6.0	†11.0
Knoxville, Tenn.	17.0	17.0	8.0	10.0
Memphis	16.5	16.5	8.0	10.0
Chattanooga	16 5	16.5	8.0	12 0
Nashville	17.5	17.5	8.0	12.0
Bristol	18.0	18.0	8.0	13.0
Lt. Rock, Ark.	15.0	15.0	8.0	10.0

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

Two-cent discount off kerosene tank wagon price and 2½ cents off gasoline tank wagon price to dealer and commercial accounts.

Ohio

STANDARD OIL CO. (OHIO)*

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Ohio points	13.5	14.0	5.0	*12.0

*Two cents off on gasoline tank wagon to dealers and commercial accounts; 2½ cents off tank wagon on kerosene to dealers.

Nebraska

STANDARD OIL CO. (NEBRASKA)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Omaha	16.3	17.3	5.0	9.0
McCook	17.0	17.0	5.0	11.75
Norfolk	16.3	17.3	5.0	10.75
N. Platte	17.0	17.0	5.0	9.0
Scottsbluff	17.3	18.0	5.0	10.0

Note—Dealers' discount allowed as follows: Red Crown Ethyl, 3 cents off station price; Red Crown, 2½ cents off normal service station price; Nebraska Blue (third grade), 1 cent off normal service station price.

New York and Part of New England District

STANDARD OIL CO. (NEW YORK)*

	Gasoline			Kero.
	Tank wagon	Service station	Incl'd tax of	tank wagon
Albany, N. Y.	15.0	16.0	4.0	9.0
New York	13.5	13.5	4.0	9.5
Buffalo	15.0	16.0	4.0	9.0
Rochester	15.5	16.5	4.0	9.0
Syracuse	14.0	15.0	4.0	9.5
Boston, Mass.	13.5	14.5	4.0	8.0
Augusta, Me.	17.5	18.5	5.0	9.0
Manch'tr, N. H.	17.5	18.5	5.0	8.0
Burlington, Vt.	18.0	19.0	5.0	8.5

*Discount schedule to commercial accounts are as follows: At service stations, 1 cent per gallon; tank wagon deliveries up to 20,000 gallons monthly, 2 cents per gallon; 20,000 to 100,000 gallons, 2½ cents; 100,000 to 300,000 gallons, 3 cents; 300,000 gallons and up, 3½ cents.

Atlantic Coast District

STANDARD OIL CO. (NEW JERSEY)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atl'tic City, N.J.	14.0	15.0	4.0	11.2
Newark	13.3	14.3	4.0	8.5
Annapolis, Md.	14 6	15.6	5.0	9.0
Baltimore	14.0	15.0	5.0	8.0
Cumberland	15.5	16.5	5.0	11.7
Wash'g'n, D. C.	13.2	13.2	3.0	10.0
Danville, Va.	16.7	17.7	6.0	11.9
Norfolk	15.1	16.1	6.0	10.3
Petersburg	16.2	17.2	6.0	11.4
Richmond	15.5	16.5	6.0	10.7
Roanoke	16.7	17.7	6.0	11.9
Charls'n, W. Va.	15.4	16.4	5.0	11.6
Parkersburg	14.0	15.0	5.0	10.2
Wheeling	15.0	16.0	5.0	11.2
Charlotte, N. C.	13.2	19.2	7.0	12.5
Hickory	13.5	19.5	7.0	13.7
Mt. Airy	13.6	19.6	7.0	12.8
Raleigh	13.1	19.1	7.0	13.3
Salisbury	13.4	19.4	7.0	12.6
Charleston, S.C.	16.1	17.1	7.0	10.3
Columbia	18.0	19.0	7.0	13.2
Spartanburg	15.5	16.5	7.0	12.5

Two cents per gallon discount off tank wagon price of gasoline to dealers except Washington, D. C., and Baltimore, Md., where discount is 3 cents. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey.

Naphtha

	Tank-Wagon	Car
Oleum spirits	10.7	6.32
V.M.&P. naphtha	12.7	7 32
Cleaners' naphtha	15 2	9 32
Stanisol	15 2	9.32

Tank wagon prices f.o.b. Chicago January 6, 1932. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Canada

IMPERIAL OIL, LTD.
Imperial 3-Star Gasoline

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Hamilton, Ont.	22 5	25.5	6.0	15.5
Toronto, Ont.	22.5	25.5	6.0	15.5
Brandon, Man.	29 0	32.5	7.0	17.5
Winnipeg, Man.	26.0	29.5	7.0	17.5
Regina, Sask.	29.0	33.0	6.0	21.5
Saskatoon, Sask.	31.0	35.0	6.0	23.5
Edmonton, Alta.	29.0	32.5	5.0	22.5
Calgary, Alta.	25.5	29.0	5.0	10.0
Vancouver, B.C.	26.5	29.5	7.0	22.5
Montreal, Que.	22.0	26 0	6.0	15.0
St. Johns, N.B.	24.5	28 5	7.0	20 5
Halifax, N.S.	23.5	27.5	6.0	20.5

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline			Kero.
	Tank truck†	Posted retail	Incl'ds tax of	tank wagon
Fresno	19.0	18.0	4.0	17.0
San Francisco	19.0	18.0	4.0	15.5
Los Angeles	17.5	16.5	4.0	15.5
Reno, Nev.	23.0	22.0	6.0	19.0
Portland, Ore.	16.4	15.4	5.0	16.5
Seattle, Wash.	17.4	16.4	6.0	16.5
Tacoma	17.4	16.4	6.0	16.5
Spokane	20.9	19.9	6.0	20.5
Phoenix, Ariz.	18.0	20.0	6.0	20.5

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

Pennsylvania-Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Pittsburgh, Pa.	15.0	16.0	4.0	10.0
Philadelphia	13.0	14.0	4.0	10.0
Scranton	14.5	15.5	4.0	10.0
Allentown	14.5	15.5	4.0	10.0
Altoona	15.0	16.0	4.0	10.0
Erie	15.0	16.0	4.0	10.0
Dover, Del.	14.5	15.5	4.0	10.0
Wilmington	14.0	15 0	4 0	9.0
Spring'd, Mass.	14.5	15.5	4.0	8.0
Worcester	14.5	15.5	4.0	8.0
Boston	13.5	14.5	4.0	8.0
Providence, R.I.	13.5	13.5	3.0	8.0
Hartford, Conn.	13.5	14.5	3.0	8.0
New Haven	13.5	14.5	3.0	8.0

Discount schedule effective November 1, 1932. In Delaware and Pennsylvania, 2 cents off station price on purchases of 2,000 gallons or more per month, in remainder of territory 1 cent. Wholesale discount 2½ cents per gallon on monthly deliveries of 20,000 to 100,000 gallons, 3 cents on 100,000 to 200,000 and 3½ cents on more than 300,000 gallons.

TANK WAGON CHANGES

(Regular grade gasolines)

Standard Oil Co. of New Jersey effective January 28 reduced kerosene tank wagon price 1 cent at Annapolis, Md.

Standard Oil Co. of Kentucky effective January 27 reduced gasoline tank wagon and service station prices 2 cents at Montgomery, Ala.; effective January 28 advanced gasoline tank wagon and service station prices 2 cents at Jacksonville, Fla.; effective January 30 advanced gasoline tank wagon and service station prices 1 cent at Tampa, Fla.

Continental Oil Co. effective February 1 reduced gasoline tank wagon and service station prices 2 cents at Albuquerque, N. Mex.

Magnolia Petroleum Co. effective January 25 reduced gasoline tank wagon and service station prices 1 cent at Tulsa; effective same date reduced gasoline tank wagon and service station prices 2 cents at El Paso, Tex.; effective January 30 reduced gasoline tank wagon and service station prices 2 cents at Muskogee, Okla.

Law Governing Tax on Lubricants Is Clarified

(Continued from Page 21)

a component material in the manufacture of that product. The section does not apply when 'X' makes a sale to a marketer for the purpose of resale to 'V' who will use the oil for further manufacture.

"Supplemental question. 'If not, and assuming that tax is paid by X, passed on to Y and V, are we correct in our understanding that V, after selling the finished product, may, on the return covering sale of the finished product, secure a credit for the amount of tax passed on to him by reason of his purchase from Y?'

"Answer. Attention is directed to the enclosed copy of Treasury Decision 4357. Under provisions of that treasury decision 'V' may take a credit or claim a refund in the amount of any tax which has been paid by 'X' with respect to the sale of oil which 'V' purchased and used for further manufacture, provided the requirements of Treasury Decision 4,357 are complied with."

"Question 3. Information is requested with respect to the taxable status of a transaction where lubricating oil is sold by the manufacturer or producer thereof, to another manufacturer or producer of lubricating oil to a state or political subdivision thereof through a 'bona fide agent.'

"Answer. You are advised that the bureau is not disposed to answer any questions of this kind without supporting evidence, such as copies of actual contracts between the producer and the buyer, as well as a copy of the contract between the producer and the agent who delivers the product; and all forms which are used in the transfer of the articles from the producer to the agent and in turn from the agent to the buyer. Upon receipt of the above evidence a ruling will be made upon the specific questions raised."

NEWS FOR SALES DEPARTMENTS

Three California Companies Show Gasoline Sales Gains

LOS ANGELES, Calif., Feb. 4.—Three major California gasoline distributors, Union Oil Co., Associated Oil Co. and The Texas Company show total sales for 1932 greater than in 1931. Union Oil's position among the seven majors in the matter of gallonage in California is third with a total of 148,568,457 for 1932, as against 136,045,507 for 1931, a gain of more than 12,000,000 gallons. On the basis of the 11 months' figures, that is from January 1 to November 30, Union sales in Pacific Coast territory totaled 200,332,911 gallons, as against 199,435,537 for the corresponding period in 1931.

Associated sales in California for 1932 totaled 131,030,112 gallons, a gain of more than 9,000,000 gallons over 1931. For the first 11 months of 1932 in the Pacific Coast territory, Associated sales totaled 149,307,881 gallons, a gain of about 1,000,000 gallons over the same period in 1931. The Texas Company's California sales in 1932 totaled 58,165,791 gallons, as against 52,458,641 in 1931 and Pacific Coast sales for the first 11 months of 1932 ran 93,030,026 as against 85,067,715 gallons.

Among the independents, Wilshire Oil Co. sales for 1932 in California totaled 54,591,726 gallons, as against 53,842,785 in 1931 and Rio Grande Oil Co. sales were 52,739,973 for 1932, as against 45,343,808 gallons in 1931. For the first 11 months of 1932 the Wilshire sales in Pacific Coast territory totaled 50,811,918 gallons, as against 48,762,410 for the corresponding 1931 period. Rio Grande's ran 58,014,010 against 50,063,119 gallons and Hancock's 40,602,337 against 32,300,226 gallons.

Court Decides in Favor White Star Refining Co.

NEW YORK, Feb. 4.—The U. S. Court of Customs and Patent Appeals has upheld the Patent Office in its refusal to grant Derby Oil Co. registration of a trade-mark embodying a five-pointed white star in a red circle, bearing the company's monogram. The registration was protested by White Star Refining Co., whose trade-mark is a white star on a blue background.

Attorneys for Derby contended that White Star Refining had not shown continuous or general use of its trade-mark, but the court ruled that sufficient use of this brand on petroleum products had been shown by White Star to justify its claim to ownership of the trade-mark. Replying to the contention of Derby that a white star is sufficiently common to make it public property, the court declared that this question was not pertinent to the case.

The court, in arriving at its decision, took into consideration the fact that gasoline trade-marks are generally displayed on service station pumps along the highways, and held that a motorist in a fast moving automobile would not be apt to notice the difference between White Star's trade-mark and that sought by Derby.

SUPREME COURT DECISIONS

WASHINGTON, D. C., Feb. 7.—The Tennessee Act of 1925 taxing gasoline stored in the State has been upheld by the U. S. Supreme Court. The court also granted a review of a decision by the Tenth Circuit Court of Appeals holding a license on excise tax of 4 cents a gallon on gasoline purchased outside the State by the Boeing Air Transport, Inc., and brought into Wyoming for use in its planes in interstate commerce was invalid.

American Oil Company Obtains Large Motor Fuel Government Contract

NEW YORK, Feb. 6.—American Oil Co. of Baltimore, affiliated with Pan American Petroleum & Transport Co. (Standard Oil Co. of Indiana), figured prominently in awards for refined petroleum products announced by the Army quartermaster at Brooklyn, the Baltimore company obtaining orders for more than 1,200,000 gallons of motor gasoline for delivery at various points. Warner-Quinlan Co. was awarded orders for approximately 550,000 gallons of motor gasoline.

The complete list of awards (disregarding orders under 5,000 gallons) is as follows:

Richfield Oil Corp.: 6,000 gallons of motor gasoline, tank car delivery to South Schenectady, N. Y., 7.63 cents per gallon; 6,500 gallons, delivered to Fort Hamilton, Brooklyn, at 8½ cents per gallon; 37,500 gallons, delivery to Army Base, Brooklyn, at 7⅝ cents per gallon; 16,000 gallons gasoline, delivery at Flushing, L. I., 8 cents per gallon; 6,000 gallons to Yonkers, N. Y., and 5,000 gallons to Rockaway, N. Y., at 8 cents per gallon; 6,965 gallons to Jamaica, L. I., 8 cents per gallon.

The Texas Company: 35,200 gallons motor gasoline, delivery to Camp Dix, N. J., in government tank cars, 7.87 cents per gallon; 10,000 gallons of fuel oil, delivery to Chapman Field, Fla., at 9.37 cents per gallon; 10,000 gallons fuel oil distillate, delivery at New York, 4.98 cents per gallon; 43,000 gallons motor gasoline, delivery to Ellis Island, N. Y., 9 cents per gallon; 270,750 gallons fuel oil, delivery at Fort Bragg, 8.37 cents per gallon.

Standard Oil Co. (New Jersey): 42,000 gallons motor gasoline, delivery to Raritan Arsenal, N. J., in government tank cars, at 7.43 cents per gallon; 42,000 gallons motor gasoline, Picatinny Arsenal, N. J., at 7.99 cents per gallon; 10,750 gallons gasoline, delivery to Fort Myer, Va., at 8.55 cents per gallon; 20,000 gallons gasoline, Port Royal, Va., at 9.45 cents per gallon; 36,590 gallons gasoline to Fort Washington, Md., at 8.55 cents per gallon; 751,000 gallons fuel oil, delivery to Langley Field, Va., at 2.79 cents per gallon, in government tank cars.

Sinclair Refining Co.: 20,000 gallons motor gasoline, delivery in tank cars to Fort Monmouth, N. J., at 7.5 cents per gallon; 10,000 gallons motor gasoline, delivery to Fort Hancock, N. J., 7.51 cents per gallon; 27,500 gallons motor gasoline, delivery at Plattsburg Barracks, N. Y., 8.86 cents per gallon; 14,000 gallons motor gasoline, delivery to Pig Point, Va., at 7.68 cents per gallon; 93,000 gallons fuel oil, delivery to Fort McPherson, at 6.45 cents per gallon; 8,950 gallons fuel oil, delivery to Fort Oglethorpe, Ga., at 6.45 cents per gallon; 7,000 gallons fuel oil, delivery to Fort McClellan, 6.45 cents per gallon; 200,000 gallons fuel oil, delivery to Fort Benning, 6.45 cents per gallon; 15,550 gallons fuel oil, delivery to Fort Moultrie, 7.11 cents per gallon; 25,000 gallons fuel oil, delivery to Charleston Ordnance Depot, at 7.11 cents per gallon; 1 per cent in tank cars, 2 per cent in tank wagons.

Atlantic Refining Co.: 75,000 gallons motor gasoline, delivery to Mitchell Field, L. I., in government tank cars, at 8.12 cents per gallon.

Warner-Quinlan Co.: 5,175 gallons motor gasoline, tank wagon delivery to Fort Hancock, N. J., at 8.25 cents per gallon; 12,800 gallons of motor gasoline, delivery to Lyons, N. J., at 8¼ cents per gallon; 20,000 gallons fuel oil distillate, delivery to Newark, N. J., at 5.4 cents per gallon; 120,000 gallons gasoline, delivery to

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FEDERAL TAX COLLECTIONS

WASHINGTON, D. C., Feb. 4.—Collections from the gasoline and other taxes on petroleum as announced by the Bureau of Internal Revenue for the month of December follow: Lubricating oils, $1,372,055.36; gasoline, $13,268,950.95; pipe lines, $711,762.17; total, $15,352,768.48.—C. E. K.

OPEN EXPORT OFFICE

The Sterling Refining Co., with main offices in Tulsa, has opened an export office at 115 Broad Street, New York City. In addition to export business, the New York office will handle petroleum products for the domestic market along the Atlantic Seaboard. J. A. Doremus is in charge of the office.

ONLY AMERICAN OIL

WASHINGTON, D. C., Feb. 4.—Various amendments to appropriation bills pending in Congress provide that only American petroleum products produced in this country shall be purchased by any government department for any purpose.

HOLD CAR OF GASOLINE

Upholding the right of the State of Louisiana to seize gasoline for failure to pay state gasoline tax, the State Supreme Court ordered Judge J. C. Meraux, of St. Bernard District Court, to issue an attachment for the seizure of a tank car of gasoline owned by the Violet Oil Co.

CONSIDER BARGING PLAN

PITTSBURGH, Pa., Feb. 3.—The Socony-Vacuum Corp., parent corporation for the Standard Oil Co. of New York and the Vacuum Oil Co., is considering plans for barging refinery products to this city for distribution in this territory. The operating companies have numerous subsidiary refining and marketing organizations operating throughout the United States with the exception of the West Coast States.

PAN AMERICAN IN CLEVELAND

The American Oil Co. (Pan American Petroleum & Export Co.) has appointed the Kahler Gasoline & Oil Co., Inc., distributor of its products in Cleveland, Ohio. The Kahler company has seven large service stations in Greater Cleveland with many dealer accounts. The closest refinery of the Pan American is at Baltimore, Md., where its subsidiary, the Mexican Petroleum Co., has an 8,000-bbl. plant.

CANADIAN OIL EXPORTS

CHATHAM, Ontario, Feb. 4.—Official figures of Canada's oil exports for 1932 show a considerable decline from 1931. The totals of the various items listed under this head compare as follows, for the two years:

	1932	1931
Crude petroleum	$244,613	$667,378
Coal oil	116,897	52,328
Gasoline	585,790	889,827
Mineral oil	276,015	185,177
Mineral wax	66,144	31,092
Total	$1,289,459	$1,835,802

Pennsylvania Refiner to Expand Sale of Oil in Cans

The Pennsylvania Refining Co., which operates refineries at Karns City and Titusville, Pa., is preparing to enlarge its facilities for marketing motor oils in small packages through retail stores, according to an official announcement of the past week. The company has been experimenting for some time in package sales through groceries, drug stores, hardware stores and similar retail establishments. The company is specializing in 2 and 5-gallon cans. Explaining its plans for future sales a company official said:

"We believe the retail trade realizes the tremendous volume of business that is to be secured. Lubricating oil is a stable product, and there is an automobile in practically every home in the United States, every one of which uses lubricating oil. It may be well to give you a little history of why this change from the bulk business to the can business has been brought about. First, because of the depression people are demanding 100 cents on a dollar for every piece of merchandise that they buy. In fact, people want a bargain, and more than their money's worth.

"When oil is sold through the filling station, the motorist has to pay 25, 30 and 35 cents per quart for 100 per cent pure Pennsylvania oil. Many motorists have begun to feel that when they are paying that price for good oil, they are paying for a lot of things that are involved in the price of the oil. When you can sell the public high grade 100 per cent pure Pennsylvania oil in a can, sealed at the refinery, at a price less than 50 per cent of what they have paid for oil in bulk, it can be well understood why the motorists are buying oil through the retail trade.

"To give you some idea as to the large volume of business that is being done in oil packed in 2-gallon tins, several weeks ago a representative of the company made a trip to Detroit, and in interviewing a large chain concern, found they had sold over 100 cars of 2-gallon cans of lubricating oil in four months. At Chicago the same representative found that one small jobber in Chicago had sold over eight cars in two months' time. From there he went to Minneapolis and found that a large chain concern with 195 stores had sold in the first six weeks 23 cars, and also in Minneapolis a small grocery jobber, traveling with three salesman, had sold nearly three cars of oil in one month. The big reason for all of this is just this—that the 2-gallon can is a refinery package, direct from the refinery, and is being retailed at exactly one-half of what good Pennsylvania oil has been selling for in bulk. Common, ordinary horse sense will tell that when you can do that the public is going to buy oil in this manner."

PRICE WAR IN NEW YORK

NEW YORK, Feb. 7.—Third grade gasoline, the marketing of which until recently had been confined to a few of the major companies distributing in Metropolitan New York, is now being pushed by practically all of the leading distributors here in a price war which has attained full force over the week end. Filling stations all over the city are posting third grades at 10 and even 11 gallons for $1, including state and Federal taxes. Station operators are being allowed a flat margin of 2 cents per gallon and all deliveries are being made strictly c.o.d. Station operators are authorized in most instances to cut this price if necessary to meet competition.

NATURAL GASOLINE MANUFACTURE

Conroe Can Justify but Few Gasoline Plants at Present

Although the Conroe Field offers the greatest possibilities for the building of natural gasoline plants of the various new fields likely to be developed, the certainty that proration of crude production, either forced or voluntary, will be maintained for many months, causes those companies holding large acreage there to withhold from actual construction. It is the general belief that despite a relatively large potential gas production relatively few plants could be justified.

The companies holding large blocks of acreage in the proven and bordering areas include the Humble Oil & Refining Co., Tide Water Oil Co., The Texas Company, Standard Oil Co. of Kansas, Houston Oil Co., Skelly Oil Co., Gulf Drilling & Production Co., Alpha Oil Co., Sun Oil Co. and the Navarro Oil Co. The field now covers more than 15,000 acres and an estimate generally accepted with respect to oil recovery is 30,000 bbls. per acre.

There are approximately 100 wells drilling, 70 locations made and there are about 160 producers now in the field. Under proration the oil production is being held to about 140 bbls. per well per day and in order to justify a natural gasoline plant, it is necessary to prepare for a much lesser production per well and a sufficient gathering system would have to be laid to permit a constant operation at an economic capacity. There is a rather wide diversity in the oil-gas ratio among the wells in the entire field as those in the north end are essentially gas wells producing about 3,000 feet per barrel of oil. Those in the center of the proven area show a gas production under open flow of approximately 600 feet per well. The gas produced has no unusual characteristics and approximately 1 gallon of 26-70 natural gasoline would be made from each 1,000 feet of gas processed through an efficient plant.

Deviation of Natural Gas From Boyle's Law for Use in the Design of Plants

In the design of natural gasoline plants operating on well pressures which in some cases could exceed 1,000 pounds if there was a sufficient operating advantage to do so, it has been found necessary to allow for changes in the character of the natural gas due to failure of the gas to follow Boyle's law at the higher pressures. The deviation from the law is large and the Bureau of Mines has just made available the results of an investigation on the subject and these are made available in Technical Paper 539. In outlining the problem the authors, T. W. Johnson and W. B. Berwald, of the bureau, state:

"The volume occupied by a definite quantity of gas depends upon the absolute pressure and temperature to which it is subjected. If the temperature is constant, changes in volume may be considered only in terms of pressure. A relationship between volume and pressure is expressed by Boyle's law, which states that at constant temperature the volume occupied by a gas is inversely proportional to the absolute pressure. The mathematical expression of this law is

$$PV = P_1V_1 = K_1$$

where V is the volume at pressure P, and V_1 is the volume at pressure P_1; or, the pressure multiplied by the volume is equal to a constant.

"An imaginary gas which conforms to Boyle's law is considered an ideal gas. Many common gases conform approximately to Boyle's law at ordinary ranges of pressure and temperature, but no real gas follows it exactly.

"This investigation was confined to natural gas under pressures up to 1,000 pounds per square inch and at temperatures ranging from 40° to 80° F. Within these ranges of pressure and temperature, natural gas with an increase in pressure is more compressible; and, conversely, with a decrease in pressure is more expansible than the ideal gas. For example, at a constant temperature, 2 cubic feet of the ideal gas, measured at 75 pounds per square inch absolute pressure, according to Boyle's law will expand into a space of 10 cubic feet if the pressure is reduced to 15 pounds per square inch absolute; that is, $PV = P_1V_1$, or $2 \times 75 = 15 \times V_1$ or $V_1 = 10$. The data obtained on the natural gases used in this report show that if 2 cubic feet of natural gas, measured at 75 pounds per square inch absolute pressure, are allowed to expand to an absolute pressure of 15 pounds per square inch the gas will occupy a volume somewhat greater than 10 cubic feet.

"The relationship, at constant temperature, between the pressure and volume of a gas is known as the compressibility. The departure of the actual pressure-volume relationship from the pressure-volume relationship as expressed by Boyle's law is called the 'deviation from Boyle's law.' This deviation may be expressed in several ways. For the purpose of this report, the measured volume obtained by reducing the pressure of a definite volume of gas to some standard pressure, minus the volume at the same standard pressure computed by Boyle's law from the same initial pressure, divided by the latter, gives the deviation from Boyle's law, which may be expressed either as a percentage or decimal. To obtain the true value of the pressure times volume (P_1V_1) at the standard pressure (P_1) the product of pressure times volume at the given initial conditions (PV) is multiplied by a deviation factor of

$$1 + \frac{n}{100},$$

where n is the percentage deviation at

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Record of Gasoline Sales Must Be Made to Secure a Refund

Because natural gasoline may be sold as a motor fuel on which the tax is paid, and then may later be blended with other gasolines, the recent decision of the internal revenue bureau, setting out the requirements whereby a refund or credit may be secured, is of interest to natural gasoline manufacturers. The article (52) in which these provisions are outlined appears below:

"A credit against tax under Title 4 or a refund may be allowed or made to a manufacturer in the amount of any tax under Title 4 which has been paid by any person with respect to the sale of any article purchased and used by such manufacturer as material in the manufacture or production of, or as a component part of, an article with respect to which tax under Title 4 has been paid, or which has been sold free of tax by virtue of Section 62[?], relating to sales for further manufacture. (See Article 7.) The claim for refund must be supported by evidence showing (1) the name and address of the person who paid to the United States the tax for which refund is claimed, (2) the date of payment, (3) the amount of such tax, and (4) the fact that the article was so used. A credit must be supported by evidence of the same character. If it is impossible to furnish such evidence at the time the credit is taken, a statement to that effect must be submitted with the return in which the credit is taken. The evidence supporting such credit must be filed with the collector within 30 days after the date on which the return is filed.

SUPPLY MEN'S SMOKER

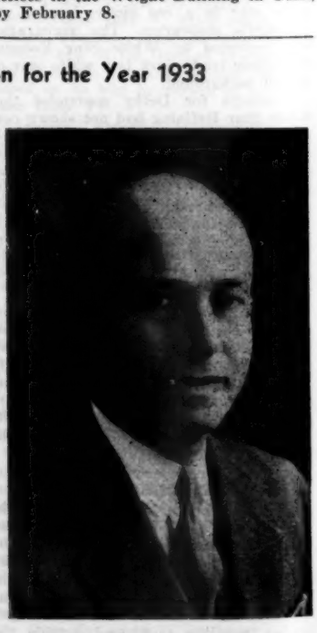
Those who wish to attend the Natural Gasoline Supply Men's stag dinner and smoker at the Mayo Hotel in Tulsa February 13 at 6:30 o'clock have been asked to notify Ray Miller, secretary, with offices in the Wright Building in Tulsa, by February 8.

New Officers Who Will Direct Activities of the Natural Gasoline Supply Men's Association for the Year 1933

W. D. MOORER
President

B. W. VINSON
First Vice President

A. V. B. CANDLER
Second Vice President



M. H. KOTZEBUE
Treasurer

Witnesses Make Serious Charges at Investigation

(Continued from Page 9)

A. W. Parker was a most unwilling witness, but details of alleged pay-offs were wrung from him.

He told of Messrs. Walker, Duncan, Galbreath and himself conferring on a tax payment of about $32,000 late in December. The tax commission received such a check, but no report on oil was attached. He said a syndicate had handled the oil from the R. A. MacArthur wells. He admitted the "hot" oil deals, and said that Mr. Duncan had left Oklahoma City the night before for Fort Smith, Ark., and that he had consented to keep him posted of what happened here.

Governor Asks for Lawyer

Governor Murray sought to have an attorney for himself and Cicero Murray admitted to the hearings, and accused Senator Woody Dixon of offering a bribe. The Senate gave Senator Dixon a vote of confidence.

Misses Sellers and Tibbs were placed under protection of the sergeant of arms of the Senate, since it was reported they had been molested.

J. A. Johnson of Gladewater, told of knowing Mr. Flaxman and Mr. Walker and going with them to Houston, Tex., to find a buyer for the 20 000,000 bbls. of oil. He said they told him they had "fixed" the corporation commission so that proration would be broken. C. C. Childers was the only name he could remember in connection with the incident.

Friday found the investigation leading to many sources.

Harry Kesslar, insurance salesman, who had worked out of the "blind" office, testified he had been called on the phone and told that if he appeared before the committee he would be "burned." He said he saw Jack Walton, then a candidate for corporation commissioner, go to the office and confer behind locked doors with Mr. Walker, who later said they would "have to raise money to help Jack." He said he quit going to the office because it wasn't "pure" or "on the up and up."

A. C. Fletcher, crude oil broker having a connection with the Globe Oil & Refining Co., told of buying oil in Oklahoma City and of all of it being "cleared" through the military office; he said he thought "some of the oil was hot."

E. D. Hicks resigned from the corporation commission, effective February 15.

Mark Kleeden was being kept under "cover," and was expected to testify at any time.

J. C. Denton, Mid-Continent Petroleum Corp., vice president, said proration had cost his companies $2 000,000 per year, and he suggested revisions in the law.

Texas Legislators Open East Texas Investigation

AUSTIN, Tex., Feb. 6.—A subcommittee of the oil and gas committee of the house of representatives investigating administration of the oil and gas conservation statutes in the East Texas oil field Monday questioned employes of that agency about their political activities.

Homer Pierson, deputy supervisor in charge of the field, declared every effort was made to enforce all regulations.

"We try to get the rules enforced without filing complaints by talking with the operators," Pierson said. "Seven times out of ten we get it corrected this way without having to go to court."

"Were any records in East Texas destroyed the past week?" Long asked.

"Not to my knowledge," Pierson replied.

W. P. Hood, in charge of supervision of pipe lines, said complaints had not been filed for violations in some instances because it was the policy of the commission to try to persuade the erring ones to get in line without going to court.

"In most instances they would make their promises look so good we would just decide to wait on them to see if they would not voluntarily comply," Wood testified.

Among the pipe line companies not making reports was the Atlas, which was protected by a federal court injunction, Wood said.

"We heard the injunction had been dissolved and some of our men went over there to gauge, but were not permitted by armed men to enter the premises," Wood said.

Wood said he personally never had "encountered firearms," but that Owen W. Noell, one of the commission men, had.

Wood said the pipe line inspection branch of conservation enforcement was handicapped for a period because it had only three men on the work.

Answering interrogations by Representative R. J. Long, Wood said he believed between 75 and 85 per cent of the oil was moved from the East Texas Field by pipe lines.

"If that much oil is moved by pipe lines, why doesn't the commission give you more than three men out of 119 employes in the field, instead of having them chasing around the field gauging 200 and 300-bbl. tanks?" Long asked. Wood replied that in recent weeks the pipe line force had been increased.

Asked if the B. & W. Pipe Line Co. made a report, Wood said he never had been able to find that pipe line.

"I do not know that there is such a pipe line over there," Wood said. "Hearsay has one there, but I never have been able to find it. If you know where it is, Mr. Long, I wish you would show it to me."

Statement on Oil Barter Between Canada and Soviet

(Continued from Page 22)

accept the cattle shipments or deliver the oil, coal or other commodities.

The government has requested Mr. Serkau to furnish definite evidence that the Russian government was desirous of trading on the basis outlined. Mr. Bennett added:

"No further communications have been received in that regard. I think this house will agree that no Canadian government would seriously consider a proposal to provide credit facilities for a syndicate of vendors and at the same time to guarantee that the alleged purchaser, the Soviet government, would discharge its obligations to the vendors."

Commenting on Mr. Bennett's statement, Mr. Serkau announced that negotiations were still in progress and that he expected an oil-cattle barter scheme to be carried out, though perhaps not to the extent originally planned.

Crude Oil Prices

(Continued from Page 27)

Pennsylvania Grade Oil in Southwest Pennsylvania Lines	1.17
Penna Grade Oil in Eureka Pipe Line Lines	1.12
Penna Grade Oil in Buckeye Pipe Line Lines	.97
Corning Grade Oil in Buckeye Pipe Line Co.'s line (Jan. 20, 1933)	.70
Ragland Grade Oil in Cumberland Pipe Lines (Kentucky) (Jan. 10, 1931)	.80

PENNZOIL CO.
(Effective January 21, 1933)

Pennsylvania Grade Oil in National Transit Lines:	
Group A — Includes Cochran, Franklin, Hamilton and Doolittle districts.	$1.42
Group B — Includes Titusville district.	1.41
Group C — Includes Turkey and Tidioute districts.	1.40
Group D — Includes Bear Creek and Porkey districts.	1.39
Group E — Includes Eidenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacy and Kinzua districts.	1.37

Price depends on length of pipe line haul to plant at Oil City.

TIDE WATER PIPE CO.
(Effective January 21, 1933)

Bradford, Pa.	$1.47
Allegany, N. Y.	1.47

PURE OIL CO.
(Effective January 21, 1933)

Cabin Creek, W. Va.	$1.12
Bradford Hollow, W. Va.	1.12
Kelly's Creek, W. Va.	1.12

Middle Western States

OHIO OIL CO.
(Effective January 18, 1933)

Lima (Jan. 10, 1933)	$ .70
Wooster	.70
Illinois	.62
Indiana	.40
Princeton	.62
Plymouth	Shut in
Western Kentucky	.57
Midland, Mich. (Dec. 31, 1932)*	.96
Somerset, Ky. (Jan. 19, 1933)	.45
Muskegon, Mich. (Jan. 18)	See note

*Posted by Pure Oil Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted price. Muskegon posted by Naph Sol Refining Co. and Old Dutch Refining Co.: Below 29 degrees, 51 cents, with 2 cents added for each degree upward to 40 and above at 75 cents. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and delivered through own pipe line.

Mexico

Panuco*	$ .45

*F.o.b. ship, based on November transactions and exclusive of production and export taxes and bar dues.

Canada

Ontario (Jan. 18, 1933):	
Petrolia*	$1.75
Oil Springs*	1.82
Alberta (Apr. 22, 1932):	
Turner Valley†:	
Crude oil 40-44.9	1.56
Crude oil 45-45.9	2.18
Crude oil 50 and above	2.80
Crude naphtha	3.32
Discolored naphtha	3.08

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA
(Effective June 26, 1932)

For current purchases of crude oil at the well (unless otherwise specified.) (All gravities above those quoted take highest price offered in that field.)

Gravity—	Signal Hill (Long Beach)	Seal Beach, Alamitos Heights, Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canyon	Torrance	Richfield	Coyote Hills	Santa Fe Springs	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Athens, Rosecrans, Domingues	Montebello	Wheeler Ridge	Coalinga	Whittier-La Habra
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	$.65	$.65	....	$.55	$.55	....	$.65	$.55	$.55	$.65
15-15.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	..	.65	.55	.55	.65
16-16.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	..	.65	.55	.55	.65
17-17.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	..	.65	.55	.55	.65
18-18.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	..	.65	.55	.55	.65
19-19.9	.65	.65	.65	.65	.65	.65	.65	.65	....	.55	.55	..	.65	.55	.55	.65
20-20.9	.69	.69	.71	.69	.69	.69	.69	65	..	.59	.59	....	.65	.57	.59	.68
21-21.9	.74	.74	.77	.74	.74	.74	.74	.66	....	.63	.63	....	.67	.60	.62	.72
22-22.9	.79	.79	.82	.78	.79	.79	.79	.70	....	.69	.69	....	.70	.63	.65	.77
23-23.9	.84	.84	.88	.82	.84	.84	.84	.76	....	.75	.75	....	.73	.66	.68	.82
24-24.9	.89	.89	.92	.86	.89	.89	.89	.81	$.73	.81	.81	$ 89	.76	.69	.72	.89
25-25.9	.92	.93	....	.91	.93	.93	.93	.86	.79	.87	.87	.93	.80	.72	.75	....
26-26.9	.97	97	..	.96	.97	..	....	.90	.84	.92	.91	.97	....	....	....	....
27-27.9	1.00	....	....	....	1.00	....	....	.94	.89	.97	.94	1.00	....	....	....	....
28-28.9	1.03	....	....	....	1.03	....	....	.98	.94	1.02	.99	1 03	....	....	....	....
29-29.9	1.06	....	....	....	....	....	....	1 02	.98	1.07	1.02	1.06	....	....	....	....
30-30.9	1.09	....	....	....	....	....	....	1.05	1.02	1.12	1.05	1.09	....	....	....	....
31-31.9	....	....	....	....	....	....	....	....	1.06	....	....	1.12	....	....	....	....
32-32.9	....	....	....	....	....	....	....	....	1 10	..	....	1.15	....	....	....	....
33-33.9	....	....	....	....	....	....	....	....	1.14	....	....	....	....	....	....	....
34-34.9	....	....	....	....	....	....	....	....	1.18	....	....	....	....	....	....	....
35-35.9	....	....	....	....	....	....	....	....	1 22	....	....	....	....	....	....	....

The Texas Company, effective June 26, posted same prices as the Standard Oil Co. in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield, Montebello, North Whittier and Santa Fe Springs.

The Union Oil Co., effective June 26, posted the same price as the Standard Oil Co. in the Signal Hill, Alamitos Heights, Seal Beach, Huntington Beach, Athens, Rosecrans, Domingues, Torrance, Santa Fe Springs, Playa Del Rey, Coyote, Olinda, Brea Canyon, Richfield and Montebello. In Coalinga, Lost Hills, Kern River, McKittrick, Midway-Sunset, Elk Hills and Buena Vista Hills the Union Oil Co. met the Standard Oil Co.'s prices from 14 gravity upward, but posted a price of 50 cents for oil 11 to 13.9 degrees in gravity.

General Petroleum adopted Standard Oil Co.'s prices, effective June 26, in Rosecrans, Signal Hill, Alamitos Heights, Santa Fe Springs, Inglewood, Torrance, Brea Canyon and Olinda, up to 25.9 degrees; Richfield, Midway-Sunset, Kern River, Mount Poso, Round Mountain and Coalinga and posted in Rincon as follows: 22-22.9 degrees, 68 cents; 23-23.9 degrees, 73 cents; 24-24.9 degrees, 78 cents; 25-25.9 degrees, 82 cents; 26-26.9 degrees, 86 cents; 27-27.9 degrees, 89 cents; 28-28.9 degrees, 92 cents; 29-29.9 degrees, 95 cents, 30 degrees and over, 98 cents. In Rosecrans, General Petroleum Co. pays 65 cents for 14 to 19.9 gravity oil; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 74 cents; 23-22.9 degrees, 79 cents; 23-23.9 degrees, 85 cents, and Standard's prices for oil of higher gravity.

Associated Oil Co., effective June 26, met Standard Oil Co.'s prices in Signal Hill, Huntington Beach, Seal Beach, Alamitos Heights, Richfield, Torrance, Inglewood, Athens, Rosecrans, Domingues, Santa Fe Springs, McKittrick, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills, Lost Hills, Belridge and Coalinga.

Kettleman Hills—The Union Oil Co., effective June 26, posted 33-33.9 gravity oil at 91 cents; 34-34.9 degrees, 93 cents; 35-35.9 degrees, 95 cents; 36-36.9 degrees, 97 cents; 37-37.9 degrees, 99 cents; 38-38.9 degrees, $1.01; 39 degrees and over, $1.03. Standard Oil Co., Associated Oil Co. and General Petroleum Co. adopted same price schedule on same day.

Santa Paula—The Union Oil Co. and The Texas Company, effective June 26, posted as follows: 14 degrees to 19.9 degrees, 66 cents; 20-20.9 degrees, 69 cents; 21-21.9 degrees, 73 cents; 22-22.9 degrees, 75 cents; 23-23.9 degrees, 78 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 84 cents; 26-26.9 degrees, 87 cents; 27-27.9 degrees, 90 cents; 28-28.9 degrees, 93 cents; 29 degrees and above, 99 cents.

Shields Canyon and South Mountain—The Texas Company, effective June 26, posted same prices as in Santa Paula.

Orcutt—The Union Oil Co., effective June 26, posted prices as follows: 16 degrees to 19.9 degrees, 55 cents; 20-20.9 degrees, 59 cents; 21-21.9 degrees, 63 cents; 22-22.9 degrees, 69 cents; 23-23.9 degrees, 75 cents; 24-24.9 degrees, 81 cents; 25-25.9 degrees, 87 cents; 26 degrees and above, 92 cents.

Playa Del Rey—Subject to a field gathering charge of 5 cents per barrel.

Newhall, McKittrick and Kern River—Standard Oil Co., effective June 23, 1931, posted 55 cents for oil of all grades.

Elwood Terrace—Standard Oil Co., effective June 26, 1932, posts 33-33.9 degrees, $1.04; 34-34.9 degrees, $1.10; 35-35.9 degrees, $1.16; 36-36.9 degrees, $1.22; 37-37.9 degrees, $1.28. All prices f.o.b. ships.

Ventura Avenue—General Petroleum Co. and Associated Oil Co. effective June 26 posted as follows: 22-22.9 degrees, 72 cents; 23-23.9 degrees, 77 cents; 24-24.9 degrees, 82 cents; 25-25.9 degrees, 86 cents; 26-26.9 degrees, 90 cents; 27-27.9 degrees, 93 cents; 28-28.9 degrees, 96 cents; 29-29.9 degrees, 99 cents; 30 degrees and over, $1.02.

Potrero—Associated Oil Co., effective June 26, posted same prices as are paid by all companies in Athens, Rosecrans and Domingues.

Oil Men Protest New Order on Shrinkage Allowance

WASHINGTON, D. C., Feb. 6.—Oil producers declared in a hearing before Secretary Wilbur of the Interior Department that the recent order of the department interpreting the term "production" of oil and gas on public lands is burdensome, more costly and impossible of uniform application.

Representatives of oil interests asserted that the existing practice to allow for a shrinkage in volume at the time oil is purchased of from 1 to 3 per cent is satisfactory. The ruling of the department requires the production to be determined by tank measurement based on 100 per cent capacity tables in terms of pure oil. The order, it was argued, because of government prestige, is likely to be adopted by states and will increase royalties.

H. G. Ellis of the Wiser Oil Co., Bartlesville, Okla., said there would be difficulty in testing oil. L. W. Stewart of the Ohio Oil Co. said states were tending to follow the lead of the Federal Government and he feared they would charge royalties on the full amount.

Harold Roberts, representing the Midwest Oil Co., said production as a term implies the percentage deductions from business practices as an "art" of the industry.

Fayette B. Dow, representing the American Petroleum Institute, said present practice follows a 67-year experience, and after a five-year study by the institute no uniform system has been found feasible.

Rush Greenslade, representing the Mid-Continent Oil and Gas Association, said the order introduces "radical departures" in the system of measurement heretofore used. The order requires a determination of the purity of the oil and does not take into account a deduction that is reasonable, fair and just, which the buyer has to take into account as losses. In handling the crude oil, losses occur causing shrinkage, and these losses are due to impurities in the oil itself, the escape of fixed gases, the precipitation of paraffin, evaporation and temperature changes, Mr. Greenslade said. The order will increase the cost of operation on government leases, he said.

Peter O. Nyce, of the Humble Oil & Refining Co. said if the ruling applied only to public lands there would be no reason for argument, but there is a danger of the order being put into general practice in states.

Charles S. Consaul, representing Standard Oil, said the order is an "'undue technical nicety of oil measurement."

R. S. Knappen, engineer, testifying for the Mid-Continent Oil and Gas Association, presented studies and tests showing that a uniform table can not be applied because the gravity and other factors in oil vary, and with the variation of these factors and temperature there would be corresponding variations in shrinkage.

Mr. Knappen said costs would increase because of the necessity of putting in new equipment, the construction of new laboratories, and additional burdens to bring about the required 100 per cent capacity in terms of clean oil.

Dr. H. D. Wilde, representing the same Mid-Continent group, said the mingling of oil from different fields and in different places through pipes raises another problem of applying the standard order. Fred E. Wood, of the Mid-Continent and Rocky Mountain Oil and Gas Association, called special attention to loss of volume through water elimination, which varies from field to field.

A. G. Denman, an independent producer in Kansas, said his company had to shut down the plants while trying to find the source of an impurity the government supervisor found present. As the oil came from a number of wells, it had to be traced and tested. This involves great expense and after all, he said, "it is impossible to produce 100 per cent oil."

Refinery Executive Explains Importance of Trucks in Aiding Business Recovery

By ELBERT S. RULE
President, Golden Rule Refining Co.

The motor truck is the sensible, modern and economical way of transporting many articles of merchandise, livestock, etc., up to a distance of 300 miles and sometimes more. Already it has been the cause of adjusting the carrying charges that have been and still are exorbitant. It is now giving employment to thousands of worthy Kansas people who have little or no other way of making a living. To show that this is a way in which unemployment has been reduced and labor provided for the men who need it, I will sight a specific instance.

The tank car rate on one 8,000-gallon tank car of gasoline or lubricating oil from Wichita to a point just over the state line in Colorado is now $248.16. To transport fifty 8,000-gallon tank cars at this rate by rail would mean labor for one day of not more than 15 men.

To transport by truck the same amount of gasoline or oil as is contained in 50 cars would mean labor for one man 350 days' actual driving, and allowing 10 per cent lost time, a total of 385 days or a gain for labor of 370 days on 50 tank cars of gasoline transported.

This would mean a cost to the shipper of $12,408, which you will understand is passed on from the shipper to the consumer in like amount. But we are told that the motor truck cannot afford to handle this business. We have been told this for the last two years but we find that he continues to handle the business and is glad to get it, and says that he is not losing money.

Reviews Figures

To give the figures to prove that he is not losing money, I will review the transaction:

Allowing the distance to be 350 miles, and operating a 2-ton truck and semi-trailer that will haul 8,000 gallons in three trips, making a total mileage for the delivery of 8,000 gallons 2,100 miles, and on 50 tank cars 105,000 miles, he will receive in pay from the shipper $12,408. His motor truck will use 1 gallon of gasoline for each 8 miles traveling and 1 gallon of motor oil to each 200 miles, making a total of 13,125 gallons of gasoline he will use and 525 gallons of lubricating oil, which will cost him, on the basis of present Wichita prices, 5 cents per gallon for gasoline, without tax, amounting to $656.25. His oil at 50 cents per gallon, without tax, will amount to $262.50.

It will be necessary for him to buy two extra sets of tires to do this job, which will cost him $385 per set, or $770. Add to this his greases, amount $50, and to this repairs and mechanical upkeep $600, his insurance or public liability and property damage $100, cost of truck, trailer and tank $3,500, interest on his investment for the life of this job $225. Add to this taxes; state tax on gasoline used $393.75, Federal tax on gasoline used $131.25, Federal tax on lubricating oil used $21, license for 2-ton truck (present rate) $40, tax on repairs used (Federal tax) $10, property tax estimated at $50, ton mileage tax on this job (present rate) $630, Federal tax on tires used $92.40. The sum total of Federal and state taxes of $1,448.40. You will understand that if this shipment was made other than by truck the state and Federal Government would not receive this amount of tax. This gives us a total for investment in equipment $3,500, Federal and state taxes $1,448.40, products used and insurance $2,663.75, a grand total of $7,612.15. This leaves a balance for his labor, 385 days, $4,795.85, or $12.45 per day. To this earning you might add the trade-in value of his used equipment when the job is done, $1,000.

American Oil Company Obtains Large Contract

(Continued from Page 29)

Brooklyn Army Base, 7 cents per gallon; 20,000 gallons gasoline, delivery to Jersey City, at 8¼ cents per gallon; 35,000 gallons gasoline, delivery to Newark, N. J., 8¼ cents per gallon; 350,000 gallons gasoline, delivery at New York City, in government tank wagons, 7 cents per gallon; 5,000 gallons gasoline, delivery at Paterson, N. J., at 8¼ cents per gallon.

Standard Oil Co. of New York: 10,500 gallons motor gasoline, delivery to Watervliet Arsenal, N. Y., in tank wagons, at 8.4 cents per gallon; 25,000 gallons gasoline, tank wagon delivery to Madison Barracks, N. Y., at 8.9 cents per gallon; 11,250 gallons gasoline, delivery to Fort Ontario, N. Y., at 8.9 cents per gallon; 38,700 gallons of gasoline, lighter delivery to Fort Jay, N. Y., at 9¾ cents per gallon; 20,000 gallons gasoline, delivery from filling stations New York State, 12.4 cents per gallon; 6,000 gallons gasoline Rouses Point, N. Y., 13.75 cents per gallon; 6,000 gallons gasoline, delivery Champlain, N. Y., 13.75 cents per gallon; 6,000 gallons gasoline, delivery to Mooers, N. Y., 13.75 cents per gallon; 27,000 gallons gasoline, northern and central New York State delivery, 13.75 per gallon; 8,000 gallons gasoline, Northport, L. I., 8.35 cents per gallon; 20,000 gallons gasoline, Mill Rock, N. Y., 8¾ cents per gallon; 1 per cent in tank cars only.

American Oil Co., Baltimore: 12,000 gallons motor gasoline, delivery to Pedricktown, N. J., at 7.53 cents per gallon; 127,000 gallons gasoline for delivery to Camp Holabird, Md., at 6.93 cents per gallon; 90,000 gallons gasoline, delivery to Aberdeen Proving Ground, Md., at 7.45 cents per gallon; 192,500 gallons gasoline, delivery to Fort George Meade, Md., at 7.24 cents per gallon; 39,750 gallons gasoline, delivery to Fort Hoyle, Md., at 7.47 cents per gallon; 60,000 gallons gasoline, delivery to Carlisle Barracks, Pa., 7.93 cents per gallon; 14,000 gallons gasoline, delivery to Frankfort Arsenal, Pa., at 7.26 cents per gallon; 53,000 gallons gasoline, delivery to Fortress Monroe, Va., at 7.68 cents per gallon; 320,000 gallons gasoline, delivery to Philadelphia, at 7.11 cents per gallon; 125,000 gallons gasoline, delivery to Philadelphia, at 7.11 cents per gallon; 45,000 gallons gasoline, delivery to Langley Field, Va., at 7.68 cents per gallon; 41,626 gallons of gasoline, delivery to Fort Humphrey, at 7.08 cents per gallon; 5,500 gallons gasoline, delivery to New Cumberland, Pa., at 8.9 cents per gallon; 5,250 gallons gasoline, delivery to Harrisburg, Pa., at 12.4 cents per gallon.

Tide Water Oil Sales Corp., 39,500 gallons motor gasoline, delivery to Fort Du Pont, Del., at 8.69 cents per gallon; 8,550 gallons of gasoline, delivery to Middletown, Pa., at 9.88 cents per gallon.

Gulf Refining Co.: 23,000 gallons motor gasoline, delivery to Fort Schuyler, N. Y., at 8 cents per gallon; 12,500 gallons gasoline, tank wagon delivery to Fort Totten, N. Y., at 8 cents per gallon; 10,000 gallons gasoline, in steel drums, for delivery to Fort Slocum, N. Y., at 8 cents per gallon.

Shell Eastern Petroleum Products, Inc.: 41,250 gallons Diesel fuel oil, tank car delivery to Northport, L. I., 4.5 cents per gallon; 900,000 gallons bunker "C" fuel oil, delivery to Northport, L. I., at 2.89 cents per gallon.

Continental Oil Co.: 550,000 gallons fuel oil, delivery to Camp Holabird, Md., at 1.79 cents per gallon; 245,000 gallons fuel oil, also for Camp Holabird, at 2.29 cents per gallon:

West India Oil Co.: 75,000 gallons fuel oil, for delivery to Cristobal, Canal Zone, at 72 cents per barrel, bulk, tanker.

Spartan Oil Co.: 7,000 gallons fuel oil, delivery to Barksdale Field, Louisiana, at 7 cents per gallon.

Paragon Oil Corp.: 100,000 gallons fuel oil, delivery to New York City, at 2.43 cents per gallon; 40,000 gallons fuel oil, delivery to Brooklyn, N. Y., at 2.43 cents per gallon; 5,000 gallons fuel oil distillate, delivery to New York City, at 4.98 cents per gallon; 40,000 gallons fuel oil distillate, delivery to Brooklyn, 4.98 cents per gallon; 8,500 gallons fuel oil distillate, delivery to Flushing, N. Y., at 4.98 cents per gallon.

The purchasing officer, Marine Corps, Washington, D. C., has awarded the following contracts: Sinclair Refining Co., 120,000 gallons motor fuel, at 8.14 cents per gallon; Gulf Refining Co., 350,000 gallons of fuel oil, at 1.74 cents per gallon; Continental Oil Co., 30,000 gallons fuel oil, at 4¾ cents per gallon; Republic Oil Co., 40,000 gallons of gasoline, at 7½ cents per gallon; American Oil Co., 36,000 gallons of gasoline at 8½ cents per gallon, and 8,000 gallons of kerosene at 6.35 cents per gallon.

Deviation of Natural Gas From Boyle's Law

(Continued from Page 30)

pressure P, letting the value of n at P, equal zero.

"Computations from data obtained on the natural gases included in this report, with P always greater than P_1, gave positive values of n; that is, the value of

$$1 + \frac{n}{100}$$

was always greater than 1. Theoretical discussion of the behavior of gases, or of the causes for departure of gases from the ideal gas laws, is not included in this report.

No attempt has been made here to summarize the findings nor to explain the procedure by which the test data were secured as both are too involved to permit abstracting, however, the complete report will soon be available from the Superintendent of Documents, Department of Commerce, in Washington, D. C., for 5 cents.

Cold Weather Improves Demand for All Fuels

(Continued from Page 21)

cents for resale and 2⅛ cents to the trade.

Kerosene

After dropping to 2¾ cents in sales to the trade for the 41-43 water white grade last week, kerosene was stronger on Monday and Tuesday. Any sustained increase in the demand for furnace distillates will tend to reduce the supply of kerosene and strengthen prices. The tendency to remove all the kerosene fraction from gasoline has increased the production of the higher gravity gasolines and the 43 to 45 gravity grades are bringing little more than the 41-43 gravity grades.

Furnace Oils and Fuel Oils

In this issue all grades of furnace oil distillates from 32 to 41 prime white are again quoted over the same price range. Some refiners recognize one-eighth differentials depending on gravity and low endpoints but all grades are available from other sources at the same prices. Of the several grades the 32-36 zero straw distillate is the most difficult to find in Oklahoma. The prices to the trade on Tuesday ranged up from 2⅝ cents.

Lubricants and Wax

A slow market for the paraffin base lubricants of the Mid-Continent finally brought lower prices the first of the week. The general reductions in the bright stocks was 1⅝ cents per gallon with scattered reductions reported in neutral oils and steam refined stocks. The new demand for paraffin wax is slow and the 124-126 grade is now quoted over a price range of 1⅝ to 1¾ cents per pound.

Mid-Continent Refinery Runs Same Level as Year Ago

(Continued from Page 8)

REFINERY OPERATIONS IN OKLAHOMA
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Aver. daily runs Feb.	Aver. daily runs Jan.
Altitude Petroleum Corp., Oklahoma City	3,000	500	600
Anderson-Prichard Oil Corp., Cyril	5,000	3,800	3,500
Associated Petroleum Corp., Allen	8,000	(*)	(*)
Barnsdall Refineries, Inc., Barnsdall	6,000	3,500	1,800
Barnsdall Refineries, Inc., Okmulgee	10,000	5,000	2,700
Bell Oil & Gas Co., Grandfield	4,500	2,500	3,000
Black Gold Refining Co., Oklahoma City	1,500	750	100
Century Petroleum Co., Tulsa	500	(*)	(*)
Century Petroleum Co., Oklahoma City	2,500	1,400	650
Champlin Refining Co., Enid	16,000	6,500	6,500
Columbia Oil Corp., Oklahoma City	3,500	200	(*)
Continental Oil Co., Sapulpa	10,000	(*)	(*)
Continental Oil Co., Ponca City	30,000	11,000	10,500
Cushing Refining & Gasoline Co., Blackwell	1,800	1,500	1,500
Cushing Refining & Gasoline Co., Cushing	3,500	2,500	2,500
Deep Rock Oil Corp., Cushing	10,000	10,000	10,000
Eason Oil Co., Enid	5,000	2,500	2,500
Empire Oil & Refining Co., Okmulgee	4,000	2,500	2,300
Empire Oil & Refining Co., Ponca City	12,000	6,000	6,300
Firestone Refining Co., Oklahoma City	200	(*)	(*)
Garber Refineries, Inc., and Omar Refining Co., Garber	3,500	(*)	(*)
Globe Oil & Refining Co., Blackwell	7,500	6,000	5,000
Johnson Oil Refining Co., Cleveland	6,000	3,500	3,000
Major Oil Co., Oklahoma City	2,000	(*)	(*)
Mid-Continent Petroleum Corp., West Tulsa	40,000	18,000	18,000
Marathon Oil Co., Boynton	2,500	1,500	(*)
Marathon Oil Co., Bristow	5,000	(*)	(*)
Oklahoma City Refining Co., Oklahoma City	2,500	200	600
Phillips Petroleum Co., Okmulgee	5,000	3,500	3,500
Producers Oil Co., Bristow	2,500	1,000	1,000
Producers & Refiners Corp., West Tulsa	6,000	3,000	3,000
Pure Oil Co., Ardmore	5,000	1,200	1,200
Pure Oil Co., Muskogee	9,000	7,000	7,000
Rock Island Refining Co., Beckett	5,000	3,500	4,000
Sinclair Refining Co., Sand Springs	8,000	2,300	2,300
Singleton Gasoline Refining Co., Oklahoma City	400	200	200
Sterling Refining Co., Oklahoma City	2,000	800	800
Sun Oil Co., Yale	5,000	2,000	2,000
Sunray Oil Co. (C. E. Wright, receiver), Allen	7,000	2,500	1,000
The Texas Company, West Tulsa	15,000	8,000	9,000
Texas Pacific Coal & Oil Co., Wynnewood	3,000	1,000	1,000
Tide Water Oil Co., Drumright	15,000	7,000	7,000
Western Oil Corp., Beckett	2,000	(*)	(*)
Wilcox Oil & Gas Co., Bristow	5,000	3,000	3,000
Wirt Franklin Petroleum Corp., Ardmore	4,000	2,650	2,200
Yale Oil Corp., Yale	2,000	350	300
York Refining Co., Oklahoma City	3,000	400	(*)
Total	309,900	138,750	128,550

*Shut down.

REFINERY OPERATIONS IN ARKANSAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Aver. daily runs Feb.	Aver. daily runs Jan.
Berry Asphalt Co., Waterloo	2,000	(*)	(*)
Henry H. Cross Co., Smackover	6,000	4,000	4,000
Houston Oil Co., Camden	6,000	(*)	(*)
Kettle Creek Refining Co., Pearson	5,000	1,600	1,500
Lion Oil & Refining Co., El Dorado	12,000	6,000	6,000
Macmillan Petroleum Products Co., Norphlet	2,000	1,500	1,500
Ouachita Valley Refining Co., El Dorado	2,000	1,200	1,100
Root Refining Co., El Dorado	10,000	4,000	4,200
Simms Oil Co., Smackover	3,000	2,500	2,000
Union Asphalt Co., El Dorado†	.....	.....	.....
Total	48,000	20,800	20,300

*Shut down. †Reduces residuum purchased from Lion Oil & Refining Co., no crude run.

REFINERY OPERATIONS IN NORTH CENTRAL TEXAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Aver. daily runs Feb.	Aver. daily runs Jan.
Allstate Refining Co., Thrall	3,000	(*)	400
American Refining Properties, Wichita Falls	6,000	(*)	(*)
Archer Refining Co., Megargel	1,500	300	400
Atlantic, Pacific and Gulf Refining Co., Wichita Falls	5,000	(*)	(*)
Bobrose Oil & Refineries, Brownwood	2,000	(*)	(*)
Continental Oil Co., Wichita Falls	6,000	4,000	4,000
Dale Oil & Refining Co., Electra	4,000	(*)	(*)
Dixon Creek Oil & Refining Co., Kings Mill	3,500	900	800
Empire Oil & Refining Co., Gainesville	5,000	2,300	2,300
Exchange Petroleum Corp., Albany	500	250	350
Falls Refining Co., Wichita Falls	2,000	300	700
Gratex Refining Co., Graham	500	125	125
Gulf Refining Co., Fort Worth	10,000	3,400	6,000
Humble Oil & Refining Co., Breckenridge	2,000	(*)	(*)
Humble Oil & Refining Co., Chilton	4,000	(*)	(*)
Humble Oil & Refining Co., Neches	5,000	1,850	1,450
Iowa Park Producing & Refining Co., Iowa Park	2,500	(*)	(*)
Kent Refining Co., Minerva	2,000	285	285
Kent Refining Co., Angus	4,000	150	125
La Salle Petroleum Co., Burkburnett	3,500	100	110
Macmillan Petroleum Co., Isom	8,000	(*)	(*)
Magnolia Petroleum Co., Fort Worth, No. 1	12,000	4,700	5,600
Magnolia Petroleum Co., Fort Worth, No. 2	6,000	(*)	(*)
Magnolia Petroleum Co., Corsicana	5,000	2,200	3,280
Marathon Oil Co., Fort Worth	5,000	3,800	4,200
Moon Refining Co., Graham	300	50	60
Muenster Refining Co., Muenster	300	(*)	(*)
Olney Oil & Refining Co., Olney	2,500	900	2,000
Oriental Oil Co., Dallas	5,000	800	1,000
Panhandle Refining Co., Wichita Falls	5,000	2,000	2,000
Petroleum Refractionating Co., Pampa	6,500	4,500	5,400
Pentex Refining Co., Echo	200	50	50
Phillips Petroleum Co., Isom	18,000	13,000	17,500
Phoenix Refining Co., Inc., Dallas	3,000	600	500
Pilot Point Refining Co., Pilot Point	500	200	200
Primrose Refining Co., Wichita Falls	2,500	(*)	(*)
Shamrock Oil Co., Sunray	4,000	300	350
Sinclair Refining Co., Fort Worth	5,000	3,000	3,000
Simms Oil Co., West Dallas	4,500	(*)	2,000
Southland Refining Co., Olney	1,000	100	80
Star Refining & Producing Co., Fort Worth	1,500	300	600
Superior Refining Co., Tiffin	500	100	100
Taylor Refining Co., Taylor	6,000	800	800
Taxman Refining Co., Wichita Falls	3,000	(*)	(*)
The Texas Company, Dallas	16,000	11,000	11,000
The Texas Company, Amarillo	4,000	3,500	1,800
Texas Pacific Coal & Oil Co., Fort Worth	5,000	3,000	3,000
Texas Pacific Coal & Oil Co., Caddo	1,000	600	650
Waggoner Refining Co., Electra	6,000	2,500	2,500
Wilcox Oil & Gas Co. (Pampa Refining Co.), Pampa	4,000	(*)	(*)
White Star Refining Co., Cisco	500	400	(*)
Total	215,400	77,360	84,665

*Shut down.

REFINERY OPERATIONS IN KANSAS
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Aver. daily runs Feb.	Aver. daily runs Jan.
Altitude Petroleum Corp., Chanute	5,000	(†)	(†)
Altitude Petroleum Corp., Kansas City, Mo.	3,000	500	1,000
Barnsdall Refineries, Inc., Wichita	4,000	1,200	1,100
Derby Oil Co., Wichita	7,500	4,000	4,000
Dickey Refining Co., McPherson	5,000	1,500	1,000
Eldorado Refining Co., Eldorado	4,500	2,500	2,500
Golden Rule Refining Co., Wichita	1,500	900	900
Kanotex Refining Co., Arkansas City	12,000	4,500	3,500
National Refining Co., Coffeyville	6,500	5,000	5,000
Phillips Petroleum Co., Kansas City	7,500	7,500	7,500
Shell Petroleum Corp., Arkansas City	22,000	8,000	8,000
Sinclair Refining Co., Coffeyville	12,000	8,500	10,000
Sinclair Refining Co., Argentine	9,500	4,000	(*)
Skelly Oil Co., Eldorado	33,000	11,000	10,000
Standard Oil Co. of Kansas, Neodesha	20,000	4,000	(*)
Sunflower Refining Corp., Hutchinson	3,000	800	(*)
Vickers Petroleum Co., Potwin	3,500	2,000	2,000
White Eagle Oil Corp., Augusta	15,000	13,000	12,500
Total	161,500	78,900	75,000

*Shut down. †Operating cracking stills.

REFINERY OPERATIONS IN NORTH LOUISIANA
(Plants which have been in operation during the past year)

Company and location—	Daily capacity	Aver. daily runs Feb.	Aver. daily runs Jan.
Bayou State Refining Co., Hosston	750	500	500
Cedar Grove Refining Co., Shreveport	750	500	750
Louisiana Oil Refining Co., Shreveport, Bossier	19,000	18,600	18,500
Spartan Refining Co., Shreveport	10,000	5,500	5,000
Stanolind Oil & Gas Co., Superior	3,500	2,000	2,000
The Texas Company, Shreveport	7,000	(*)	(*)
Total	41,000	27,100	26,750

*Shut down.

Oklahoma City Field Will Afford Opportunity

(Continued from Page 10)

of bottom hole pressures. Based upon 5.6 cubic feet per barrel the oil so far removed would have occupied approximately 700,000,000 cubic feet of space underground.

While this is not precisely true because the gas has occupied a portion of the space in the reservoir rocks it will give a general idea of the amount of underground space occupied by oil and gas. Since this volume has been removed to the surface something must take its place in the reservoir. The natural elements to replace the oil that has been removed are expanding natural gas coming out of solution from the oil and water under pressures greater than the existing pressures in the sands.

Production Problems

All wells in the Oklahoma City Field were drilled with rotary outfits, and records kept of tests made to determine trend of the holes while drilling indicates that they are for the most part comparatively straight. Some of the wells drilled early in the life of the field did deflect from the vertical but as they were in the Arbuckle lime and lower Simpson areas, which now have considerable water, the crookedness of the holes will not seriously enter into production problems.

Flow strings set in wells in this field were 6⅝, 7 and 9⅝-inch O.D. casing. Some wells have had strings of tubing run in them and practically all wells have either solid or adjustable chokes at the well head.

The original rock pressure in all producing formations in the Oklahoma City Field was about 2,300 pounds per square inch at the average depth of 6,450 feet. This was sufficient to cause all wells to flow when first completed. As the oil and gas has been produced the well pressures have decreased until it is now necessary to produce many of the wells by mechanical means.

Gas lift has been successfully used in many of these wells, the gas being secured from natural gasoline plants located in the field. Fluid levels have been relatively high, approximating 5,000 feet in the Arbuckle lime and 4,500 feet in the Simpson. Best results with the gas lift have been secured with the tubing submerged from 1,500 to 2,000 feet giving a total lift ranging from 2,500 to 4,000 feet. Kick-off pressures ranged from 700 to 800 pounds, and working pressures about 350 pounds.

Some wells have been pumped and there are a few still on the beam. In these wells the working barrels are set near the bottom of the hole and because the fluid levels range from 3,000 to 4,000 feet it is the opinion of some engineers that the oil has been secured by agitation rather than by true pumping.

The submerged electric driven pump has been tried in one well and has been found satisfactory. Its further future use is anticipated and wells completed with 9⅝-inch casing will offer excellent opportunities for the use of the large size units designed for large volume and high lift.

In many instances wells have been produced for a time by swabbing but this is not a method to be considered for use over a long period of time because of the high cost of maintenance of equipment.

The Hughes plunger lift has been in use for about three months in one well in the south part of the field and is giving good satisfaction. This equipment and process was described in the January 28, 1932, issue of The Oil and Gas Journal, page 28, in an article by H. W. Fletcher.

Water Problems

It is generally admitted that the water found in the Oklahoma City Field is under static pressures of about 2,400 pounds and that pressure still exists in the water zone. The fact that the water has moved steadily through some of the producing formations regardless of the slow rate of withdrawal of oil under prorated conditions indicates that it is flooding the Lime and Simpson zones and also that it has moved up dip some distance in the Wilcox sand area.

This water is going to present a problem for the operators when it is produced along with the oil in appreciable quantities. Its disposal will be an added cost to the production expense of securing the oil. Some efforts have been made to control the water movement by producing the wells under back pressure but this has not been particularly effective.

Because of increase of gas-oil ratios, lowering of rock pressures in the reservoirs and water movement in all zones it would seem that the next problem for the operators will be mechanical lifting. The use of some mechanical means of recovering oil will probably increase materially during this year and the problem is already giving some concern to production men and engineers. They are all interested in details of available production equipment.

The small operators should consult with competent engineers in regard to their wells because they will be confronted with these problems and as suggested it is possible that they may reduce their individual investments in equipment by combinations of wells favorably situated into groups that can be powered from one central plant, whatever form this plant may take.

As it is certain that there is a very considerable amount of additional oil to be recovered from this field, especially from the Wilcox sand zone, it seems that concerted action by all interested parties on future production methods will aid

materially in securing the greatest possible volume of oil.

The mechanical means are at hand to accomplish the desired results but their application to the various wells is naturally being deferred so long as the production is secured by natural means. However, the time seems to be approaching when the problem will become critical.

Weather Stimulating Sales of Furnace Oils in East

(Continued from Page 25)

steady and unchanged at $1.65 per barrel, bulk, terminal, for Diesel oil for bunkering purposes. Most of the current volume consists of contract deliveries, relatively little spot buying being reported.

Inquiry for tank car deliveries of Diesel oil has picked up a little and the market remains steady at 4 cents per gallon for 26-30 gravity oil, f.o.b. terminals.

Gas Oil

Gas manufacturing companies are drawing stocks in larger volume, and while gallonage in this field has been adversely affected by the growing use of the heavier oils in gas making, refiners reported that last week's volume was somewhat in excess of that for previous weeks. While refiners are still posting 4 cents per gallon for 28 gravity minimum oil, tank cars, terminals, most of the business is reported going through at a quarter cent under that figure.

For the first time in several weeks, there was an increase in stocks of gas and fuel oils at East Coast refineries during the week ended January 28, holdings being 7,835,000 bbls., as compared with 7,676,000 bbls. at the close of the previous week.

Paraffin Wax

A better tone had developed in the market for the lower melting points of fully refined 120-122 a.m.p. and 125-127 a.m.p. being quoted one-eighth cent higher at 2½ cents and 2⅞ cents per pound, respectively. The higher melting points were unchanged in price.

Domestic consumers were coming into the market for prompt shipment stocks in better volume, and there was some inquiry reported for March shipment. Consumers have not been buying heavily in recent months, and it is reported that their reserve supplies are near the vanishing point.

Export inquiry was likewise along more active lines last week, although foreign buyers appeared to be interested mainly in the crude scale product.

Petrolatum

Spot inquiry for petroleum showed a little improvement during the past week, and the market undertone remained fairly steady. Cosmetic manufacturers were evincing more interest in the white grades, for delivery during the second quarter, and other consumers were also indicating a readiness to operate on a more extensive scale.

Snow white was well held at 6½ cents per pound, in barrels, car lots, and the cream grade was steady at 4⅝ cents. A little export inquiry for the dark grades was reported, but little actual buying for shipment abroad developed during the period.

Lubs

Export buyers were showing somewhat more interest in offerings and while the amount of actual buying reported was light, sellers were looking for more activity in the near future. Bright stocks developed more firmness, with No. 8 color quoted a half cent higher at 23½ cents per gallon, and the 6½ color, dil., product showing a corresponding gain at 24 cents. Straightrun unfiltered stocks, however, were softer, with 600 quoted at 15 cents per gallon and 650 at 17 cents, reductions of a half cent in each instance.

Buyers were still holding off the market for neutral oils, and spot business was confined to small quantities for immediate shipment. Quotations were unchanged on both pale and red oils.

Conroe Field Presents Many Characteristics

(Continued from Page 11)

nation of the actual water table level in the oil producing horizon and have provided fair proof that this water is not the same as that found in the center and top of the field.

Cross Section Shows Water Level

The accompanying chart of a cross section of the Conroe Field from Northwest to southeast shows the structural conditions as actually correlated to scale and also indicates the water situation. For determination of the water table in the oil sands typical key wells are indicated but the water level has been outlined not only by these but by wells in key positions on nearly all sides except the middle east, southwest and due south. This water level, which can be checked pretty closely and which is indicated on the chart, lies between minus 4,990 feet and 5,000 feet, or 40 to 50 feet below the water found in the center and high part of the field. Humble Oil & Refining Co.'s No. 18 South Texas Development Co., located on the extreme north side of the field and shown at the extreme left of the chart, found water in the top of the Conroe pay at minus 4,994 feet and was abandoned. There was sand showing a little oil in the lower part of the upper gas zone, but this was not sufficient for a test. Alpha Oil Co.'s No. 1 South Texas Development Co., about 1,000 feet to the south of the Humble water well, previously had been completed at a depth of minus 4,978 feet without going into water. Humble's No. 7 South Texas Development Co., south offset to Alpha's No. 1, drilled to minus 4,988 feet and at that depth had not touched water. Numerous wells over the field have been drilled to around minus 4,980 feet and 4,985 feet but except for those located high and which have drilled through the oil saturated horizon into the separate water horizon, none has encountered water, so far as known. Wells in the high part of the field and which drill through the oil sands into the water are all plugged back and now produce pipe line oil.

At the left of the accompanying chart is indicated a fault which extends along the north side of the field. This fault, as shown, has a displacement of approximately 150 feet, the main part of the field being on the downthrow side. In this case the fault has not affected production with production existing in corresponding horizons on each side, a condition due probably to the fact that the faulting took place following the accumulation of the oil and gas in the trap. One of the peculiarities of the field is Alpha Oil Co.'s No. 1 Dunn, the first well on the chart to the right of the chart. This well is one of the lowest in the field and at a total depth of minus 5,069 feet has made no water.

Shut Off Gas Sands

In the completion of the wells at Conroe every effort is generally made to shut off as much of the gas sands as possible. The first two wells drilled in the field, being wildcats, were completed in the upper gas zone, but with the discovery of the underlying oil saturated sands all holes now are carried on down and the two original gas wells since have been deepened. The procedure now is to drill directly down to near where the bottom of the upper gas zone should be, then core through the gas cap of the present producing horizon for the saturated oil sand. Between 65 and 75 feet of the saturated sand usually is taken in for completion of the wells. Casing, usually 7-inch (outside diameter), generally is seated and cemented near the bottom of the upper gas zone and just over the gas cap of the lower horizon. In the setting, the screen is run into the sand with blank pipe or liner through the gas cap, this liner being sealed to the casing with a packer and having a bootleg packer joining it and the screen at about the oil-gas cap contact. Some operators are inclined to take in with their screen some of the gas cap section, the amount depending on individual circumstances. However, the more taken in the greater the gas-oil ratio and operators prefer to include as little as possible.

That there will be a high per acre yield is indicated in estimates of oil recovery. Calculations based on present known sand conditions and with all possible deductions for conservatism place the yield so high that the majority of operators are skeptical and do not accept the estimates as possible. Samples of the sand have shown an effective porosity of 26 per cent but using 20 per cent as a conservative figure, and figuring an average sand thickness of only 50 per cent, the yield would figure out 77,785 bbls. per acre, and allowing for only a 50 per cent recovery this would give 38,892 bbls. At present there are approximately 15,000 acres of proven territory in the field which would make a total recovery of 583,380,000 bbls. However, there are so many factors which may come up that the above figures are little more than guesses.

Uncertainty Restraining Buying in Chicago Area

(Continued from Page 24)

quer diluent, 11.25 cents; heavy lacquer diluent (200-300), 9.50 cents; petroleum spirits, 4 to 4¼ cents (Group 3); paint thinner, 7.50 cents; rubber solvent, 7.5 cents. Prices delivered Milwaukee are one-half cent higher. Prices delivered Cleveland are as follows: Cleaners' naphtha 9 cents; V.M.&P. naphtha, 8.5 cents; Stoddard solvent, 7.5 cents; light lacquer diluent, 12.75 cents; medium lacquer diluent, 11.25 cents; paint thinner 7.5 cents, and rubber solvent 7.5 to 7.75 cents. The rubber solvent material is for the Akron district, and in view of the price war, now extended to the Chicago district, it is not surprising that this light cut is cut to "the bone" to "meet conditions." Tires have been reduced in the Chicago district by the leading mail order houses and the regular producers have followed.

Kerosene Tank Car Markets

The kerosene tank car markets have been aided by a good statistical position, but the mild weather of this winter has caused demand to dwindle to the vanishing point. Some of the major oil companies are offering kerosene at lower prices so the ruling markets Monday may be said to fall in the following range: 2⅝ to 2¾ cents for the 41-43 water white material, and 2¾ to 2⅞ cents for the 42-44 water white material.

It is of interest to note here that the Interstate Commerce Commission is seriously considering the placing of distillate charges in railroad transportation in the class of fuel oil charges. According to the present plan distillate which is unsuitable for illuminating oil purposes will be billed on the railroad on the fuel oil rate.

Distillate and Fuel Oil Changes

The 32-36 straw zero distillate dropped an eighth of a cent, and the 38-40 straw and prime white distillate moved down a quarter of a cent this week. The 32-36 industrial gas oil likewise moved down an eighth of a cent to a range of 1½ to 1⅝ cents. The 28-30 zero fuel oil moved down 5 cents a barrel and the 26-30 material lost similarly. The 22-26 zero fuel oil was firm at 60 to 65 cents, and the 18-22 zero fuel oil was unchanged at 50 to 55 cents. Below 18 material was likewise unchanged at 45 to 50 cents.

Petroleum Coke Prices

It was pointed out last week that current strife among coal dealers and the absence of suitable weather would bring about lower petroleum coke prices. Today the major petroleum coke producers reduced all grades of petroleum coke $1 a ton. Monday's prices are as follows: Breeze and screenings, $4.50; still runs, $5.50; direct from stills, $6.50; lump and egg, $6.50. All but the lump and egg are delivered f.o.b. East Chicago, switching district, with the seller absorbing 80 cents per ton on the shipping cost.

May Remedy Double Taxation on Gasoline

(Continued from Page 12)

Federal authorities would consent to add to their tax on gasoline, collected from refineries at slight expense, an additional rate on behalf of the states, the yield of which would be distributed according to estimated gasoline consumption."

Speaking of overlapping taxes Walker Murphy of North Carolina said he had made an estimate of from $320,000,000 to $350,000,000 of such overlapping taxes.

State Senator Lycurgus L. Marshall of Ohio said gasoline taxes should be left to the states unless some system should be devised by which the states would be allotted their share of such taxes according to population or consumption when collected by the Federal Government.

State Senator Perry B. Gaines of Kentucky pointed out to the convention that Canada had a sales tax and he added:

"Canada is better off than any government in the world. We want a sales tax to relieve the realty taxes."

"Let the Federal Government," he said, "put on a 4-cent per gallon tax on gasoline and divide that with the states on the basis of population."

State Senator Joseph G. Wolber, of New Jersey, said the gasoline sales tax was the only sales tax in his state.

The representative of Georgia said their budget amounted to $28,000,000 and $18,000,000 of that was from the gasoline tax.

From the remarks of the delegates there would be support of the proposal to have a uniform gasoline tax levied by the Federal Government with a portion of that tax allocated to the states, to avoid tax duplication.

The second day's sessions of the Legislative Convention was devoted to discussions on reports of committees. Before any action is taken on reports of committees there will be a referendum to ascertain the views of delegations on all questions involved.

There was a pronounced feeling of optimism that the Legislative Convention would work out some practical plan for lessening double taxation, and bringing many states into the plan for Federal levies and collection of taxes, a portion of which would be turned over to the states. This applies with great force to sales taxes, taxes on gasoline and other forms of taxation.

W. R. Boyd Establishes Word Record as Witness

AUSTIN, Tex., Feb. 6.—Attorneys said a new high record for testimony by a single witness was set by William R. Boyd, Jr., executive vice president of the American Petroleum Institute, who spoke more than 1,000,000 words from the witness stand during his appearances in district court here. He was witness in the Texas ouster suit against 15 major oil companies and two national oil marketing associations. He took the stand October 13, and occupied it eight weeks.

Mr. Boyd's testimony will fill more than 2,500 typewritten pages. In addition, the State has placed in the record 721 exhibits taken from the files of the Institute.

STANDARD DIVIDENDS

Standard Oil Co. (New Jersey) has omitted the extra dividend of 25 cents a share which had been paid quarterly since the middle of 1929. Directors ordered the continuance of the regular dividend of 25 cents a share. The company earned 34 cents a share in 1931 on its 25,735,468 shares. The company had paid an extra dividend since 1926, disbursing 12½ cents quarterly from that year until June 15, 1929, when the 25-cent payments began.

Standard Oil Co. of California is maintaining dividends at 50 cents a share quarterly.

Directors of Standard Oil of Indiana have declared the usual dividend of 25 cents.

3 SPECIALS

Midcontinent Paraffin Base . . . .

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② RED and PALE NEUTRALS

③ COMPOUNDED LUBRICATING OILS

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New Order on Well Spacing in East Texas Area; 30 New Locations and 49 Completions

By L. E. BREDBERG

DALLAS, Tex., Feb. 6.—The railroad commission issued a new order this week revising the spacing of wells in the East Texas Field, eliminating the old rule which allowed only one well to 20 acres, but which in reality was never observed by many operators or the commission itself as a great number of permits were issued to operators who held small tracts, and in many cases subdivided these tracts in order to drill other wells on them and thereby get more production from their small leases. Permits apparently were easy to obtain for wells on these subdivisions as subdividing such leases was done in a wholesale manner for awhile.

The new order became effective January 31, and is said to be designed to allow closer spacing of wells in order to increase the ultimate recovery from the field. The new order now permits the drilling of wells 660 feet apart, which will allow approximately one well to each 10 acres. Wells are to be placed 330 feet from property lines except in special instances where different footage is necessary to prevent drainage by offsets. The new order reads in part, "No well shall hereafter be drilled for oil or gas at any point less than 660 feet from any drilling or completed well; and no well shall hereafter be drilled for oil or gas at any point less than 330 feet from any property or division line."

Granting of too many permits has been criticized by Bob Long, state representative, who recommended that the legislature make an investigation of enforcement, and also by Charles F. Roeser, independent operator, who testified at the hearing of the commission held in Tyler the latter part of January. Since that time it has been reported permits were not so easy to obtain.

Locations and Completions

Although the order has been issued giving more leeway in regard to drilling up leases it is not believed drilling will increase materially, especially with the price of oil down to its present level, and the field limited to 290,000 bbls. per day. However, if proration is broken more wells may be rapidly put down to protect the leases which have not been closely drilled. This week there were only 30 locations staked in the field, and 49 wells were completed. The 25 larger lease owners in the field will do most of the remaining drilling in the field due to the fact that their present ratio averages only one well to every 14 acres, whereas the rest of the producers have drilled an average of one well to approximately every 8.5 acres. During the past few months companies such as the Humble Oil & Refining Co., Mid-Kansas Oil & Gas Co., and Magnolia Petroleum Co. and others which had a low percentage of wells compared to smaller operators, have been drilling their leases at a brisker rate in an effort to reach the average for the field. The first named company now has one well to every 15 acres. It is the largest lease holder in the field.

New Purchasing Order

Today the Humble Oil & Refining Co. announced it would purchase 25 per cent of the net quantity of East Texas oil held in storage by the Humble Pipe Line Co., the order being retroactive to February 1. It will pay the posted price of 50 cents per barrel for that portion so purchased, the Humble Oil & Refining Co. also paying the 10 cents per barrel gathering charge assessed by the Humble Pipe Line Co. for gathering this oil and running it to storage. However, it will not pay the 2 cents per barrel per month storage which the pipe line company charges the producers. The company has been purchasing only 60 per cent of the daily allowable from wells to which it was connected, running the remaining 40 per cent to storage for the producer. The new announcement pertains to this oil held in storage. The company is the only purchasing company in the field purchasing and storing oil in this manner. All the others are taking the full daily allowable, which averages around 30 bbls. per well.

Field Operations

Farrell Drilling Co.'s No. 1 W. W. Hammett in the Walker Pettit Survey, south Rusk County, a south offset to Wo-mac Oil Co.'s oil and gas well, has extended the southern gas area a short distance farther to the south. It was completed for an initial production of 20,000,000 feet of gas. Total depth is 3,650 feet. Sand was topped at 3,640 feet.

Another test is to be drilled in this area by Jordan and Ramsey on the L. W. Prior farm in the same survey as the Farrell well. This new test will extend production approximately 1 mile farther south if it proves a producer, consequently will be an interesting test for this part of the field.

Wildcatting Activities

Gardner Brothers and others' No. 1 J. Leonard in the Philip Mason Survey, a short distance northwest of the Van Field, will probably be abandoned at its present total depth of 6,375 feet after failing to pick up saturation in the Trinity sand. It topped the Paluxy sand at 6,057 feet and apparently has been drilled deep enough to satisfy the owners further drilling would be useless. This has been one of the most interesting wildcat tests in the East Texas district during the past few months.

Shell Petroleum Corp. and others' No. 1 Phillips in the Swayze Survey, Leon County, is still trying to make a producer. A test of the deepest saturated sand is to be made between 6,146 and 6,157 feet. The 5-inch casing was plugged with cement, and plug has been drilled 1 foot below the casing shoe. A test showed that the upper water had been shut off, which should leave a good clean hole for testing, water having showed up on the first test made at this depth.

Wadley and others' No. 1 Duffey, in the Thomas Starr Survey, north of Jamestown, Upshur County, topped the Georgetown lime at 3,925 feet and is shut down for orders at 3,945 feet. No oil saturated sand was encountered in this test which is the most northerly test drilled in the Jamestown area.

Van Field

The allowable of the Van Field has been raised to 52,500 bbls., an increase of 10,000 bbls. following the Federal injunction obtained by the Pure Oil Co. against the Railroad Commission which sought to produce the extra oil to fill its refinery requirements and contracts. The commission wished to have the company take additional oil from the East Texas Field to aid the situation in that field, but the company said its refinery at Smiths Bluff could not handle more than 5,000 bbls. per day which it was then taking from East Texas, could not afford to purchase oil from that field, and that its contracts called for crude from the Van Field and not East Texas.

COMPLETIONS IN EAST TEXAS

North Gregg County

Gulf Production Co.'s No. 30 Judge, top sand 3,527 feet, initial production 83 bbls. per hour through three-quarters-inch tubing choke, total depth 3,554 feet. Humble Oil & Refining Co.'s No. 26 W. R. Hughes, top sand 3,657 feet, initial production 17 bbls. in 15 minutes through three-quarters-inch tubing choke, total depth 3,680 feet. Magnolia Petroleum Co.'s No. 5 A. J. Green, top sand 3,612 feet, initial production 132 bbls. per hour through open tubing, total depth 3,636 feet. Mullendore & Berry's No. 2 Barnswell, top sand 3,508 feet, initial production 35 bbls. in 15 minutes through open tubing, total depth 3,530 feet. Primrose Petroleum Co.'s No. 4 Blackstone, top sand 3,546 feet, initial production 35 bbls. in 15 minutes through 2-inch open tubing, total depth 3,590 feet. Sinclair Prairie Oil Co.'s No. 25 Moncrief, top sand 3,549 feet, initial production 45 bbls. in 15 minutes through open 2½-inch tubing, total depth 3,582 feet. L. W. Tarkington and others' No. 1 B. Robinson, no sand, dry and abandoned, total depth 3,511 feet. Yount Lee Oil Co.'s No. 5 Adrian & McCarry, top sand 3,459 feet, initial production 84 bbls. per hour through eleven-sixteenths-inch tubing choke, total depth 3,479 feet.

South Gregg County

J. E. Davant's No. 2 R. H. Rowland, top sand 3,525 feet, initial production 30 bbls. per hour through open tubing, total depth 3,563 feet. Clover Leaf Oil Co.'s (formerly George Foster) No. 1-A Sam Carr, top sand 3,500 feet, initial production 75 bbls. per hour through three-quarters-inch tubing choke, total depth 3,542 feet. Gulf Production Co.'s No. 4 W. B. Goyne, top sand 3,603 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,619 feet; same company's No. 10 A. Muckelroy, top sand 3,539 feet, initial production 80 bbls. per hour through three-quarters-inch tubing choke, total depth 3,552 feet. Houston Oil Co.'s No. 4 M. B. Hughey, top sand 3,495 feet.

Potter County Most Active Part of the New York and Pennsylvania Gas Field

By SPECIAL CORRESPONDENT

CORNING, N. Y., Feb. 4.—The test of Clute, Monroe and Walters on the Wentz farm, near Moreland Station, Steuben County, which has been closely watched in recent days, was definitely abandoned as a failure at a total depth of 2,437 feet. The Oriskany sand was not present and the test was bottomed much below the depths at which the sand is found in wells in Steuben County.

There were no new gas wells reported in any of the counties comprising the New York-Pennsylvania gas field, which includes Ontario, Allegany, Yates, Schuyler and Steuben Counties in New York and Potter and Tioga Counties in Pennsylvania.

It is reported that a group headed by J. F. Eberle of Westfield, Pa., has made a location to drill on the Leonard property in Farmington Township, Tioga County. N. E. French's No. 1 G. K. Rogers, a new well in Middlebury Township, is drilling. Elkland Oil & Gas Co.'s test, No. 1 Van Dusen, in Farmington Township, was fishing for bailer at 4,440 feet. The York Penn Gas Co.'s No. 1 Fred Preston in Lawrence Township was drilling at 3,100 feet, and Mellon Pollack's No. 2 C. H. Van Zile was drilling around 1,025 feet.

In Potter County the deep test on Emporium Lumber Co.'s land in East Fork Township has reached a depth of 6,290 feet. This test was started and drilled to its present depth by the Allegany Gas Co. Morrow and others' No. 1 W. D. Cole was drilling at 3,175 feet. J. Brooke Reed's No. 1 Champlin was drilling at 4,975 feet, which is deep enough to make the remainder of the drilling a subject of interest. The Rogers test on the E. A. Coyle land was drilling around 1,000 feet, and the Updegraff mystery test, also on land owned by E. A. Coyle, is drilling and is believed to have reached a depth of 4,600 feet. Hungiville and others' No. 1 Sturtevant has been shut down at 1,250 feet. Potter Development Co.'s wildcat, No. 1 Moran, in Oswayo Township, was drilling close to 4,500 feet. Sylvania Corp.'s No. 1 Phelps, in Hebron Township, was last reported drilling at 4,885 feet. G. K. Rogers was rigging up No. 1 Schutt in Hebron Township. Potter Development Co.'s No. 1 W. H. Allen, in Roulette Township, was drilling at 4,650 feet. Tioga Gas Co. was building rig for No. 1 Emporium National Bank in Shippen Township.

New York State Activities

In the New York State end of the field, Geneva Natural Gas Co.'s No. 1 O'Connor, in Phelps Township, Ontario County, was drilling below 2,600 feet. Wittmer and others' No. 1 Lewis Webber in Greenwood, in Steuben County, was drilling at 2,650 feet. Geneva Natural Gas will have another test under way in Phelps Township, Ontario County, in a short time.

Penn Natural Gas Co.'s No. 1 Ford, a Steuben County operation, was last reported drilling at 3,287 feet. Tully lime was found at 2,808 feet, the Onondaga lime at 3,287 feet, and the top of the Oriskany sand at 3,292 feet. There has been no gas showing up to last report.

In the Rathbone Field, in Steuben County, where gas is found in Chemung shales and lime shells at various depths, ranging from 600 feet to 1,400 feet, a number of tests are drilling. Bingham & Cady are drilling two tests in Cameron Mills, Steuben County. No. 1 Caparula is reaming at 1,100 feet but No. 1 Crawford is temporarily shut down at 1,300 feet. Hammondsport Natural Gas Co.'s No. 1 Dascomb, also in Cameron Mills, has been shut down. Dorr T. Martin has made a location for No. 1 Bowyer in Cameron Mills.

initial production 78 bbls. per hour through open tubing, total depth 3,540 feet. F. P. Hines and others' No. 2 W. B. Beall, top sand 3,530 feet, initial production 35 bbls. per hour through open tubing, total depth 3,561 feet. W. A. Brown's (formerly J. M. Lapin) No. 1 Lapin, top sand 3,560 feet, initial production 45 bbls. per hour through open tubing, total depth 3,582 feet. J. E. Mabee's No. 8 M. T. Cole, top sand 3,534 feet, initial production 40 bbls. in 30 minutes through three-quarters-inch tubing choke, total depth 3,560 feet.

Magnolia Petroleum Co.'s No. 5 M. T. Cole, top sand 3,629 feet, initial production 100 bbls. per hour through 1-inch tubing choke, total depth 3,633 feet. National Security Co.'s No. 2 J. A. Knowles, top sand 3,540 feet, initial production 50 bbls. per hour through open tubing, total depth 3,590 feet. Rhoades Drilling Co.'s No. 12 Sabine River, top sand 3,535 feet, initial production 30 bbls. in 30 minutes through open tubing, total depth 3,552 feet. Rowan and others' No. 1 D. Beall, location abandoned. Ruston Drilling Co.'s No. 5 R. Lacy, top sand 3,535 feet, initial production 75 bbls. per hour through three-quarters-inch tubing choke, total depth 3,562 feet. Sinclair Prairie Oil Co.'s No. 6-B A. A. King, top sand 3,420 feet, initial production 40 bbls. in 15 minutes through open tubing, total depth 3,455 feet; same company's No. 13 A. A. Lockhart, top sand 3,654 feet, initial production 20 bbls. in 10 minutes through open tubing, total depth 3,664 feet. Steen Drilling Co.'s No. 6 W. D. Lacy, top sand 3,676 feet, initial production 50 bbls. in 30 minutes through open tubing, total depth 3,680 feet. Tide Water Oil Co.'s No. 2 J. S. Elder, top sand 3,516 feet initial production 5 bbls. per hour pumping total depth 3552 feet. Weaver Crim Oil Co.'s No. 5 Peterson, top sand 3,579 feet, initial production 27 bbls. in 15 minutes through three-quarters-inch tubing choke, total depth 3,604 feet.

North Rusk County

Arrow Drilling Co.'s No. 1 I.&G.N., top sand 3,648 feet, initial production 70 bbls. per hour through open tubing, total depth 3,650 feet. Gulf Production Co.'s No. 10 Jernigan, top sand 3,613 feet, initial production 70 bbls. per hour through three-quarters inch tubing choke, total depth 3,682 feet. Humble Oil & Refining Co.'s No. 19 J. N. Peterson, top sand 3,700 feet, initial production 80 bbls. per hour through three-quarters inch tubing choke, total depth 3,703 feet; No. 5 V. E. Reid, top sand 3,606 feet, initial production 25 bbls. per hour through open tubing, total depth 3,710 feet; No. 7-A H. Sexton, top sand 3,695 feet, initial production 102 bbls. per hour through three-quarters inch tubing choke, total depth 3,722 feet. Sam K. Vierson's No. 2 Andy Givens, top sand 3,600 feet, initial production 30 bbls. in 20 minutes through three-quarters inch tubing choke, total depth 3,622 feet. Westheimer & Daube's No. 5 Peterson, top sand 3,665 feet, initial production 30 bbls. in 15 minutes through three-quarters inch tubing choke, total depth 3,690 feet.

South Rusk County

American Liberty Oil Co.'s No. 3-B Strickland, top sand 3,582 feet, initial production 25 bbls. per hour through open 2½-inch tubing, total depth 3,596 feet; No. 4 E. E. Thrash, top sand 3,657 feet, initial production 120 bbls. per hour through open 2-inch tubing, total depth 3,675 feet. Farrell Drilling Co.'s No. 1 W. W. Hammett, top sand 3,641 feet, initial production 20,000,000 cubic feet dry gas on 3-inch lead off open tubing and casing, total depth 3,651 feet. Humble Oil & Refining Co.'s No. 9-B A. D. Blackwell, top sand 3,625 feet, initial production 43 bbls. in 30 minutes through three-quarters inch choke, total depth 3,643 feet; No. 9 J. E. Glover, top sand 3,760 feet, initial production 45 bbls. in 30 minutes through three-quarters inch choke, total depth 3,791 feet; No. 14 J. W. Turner, top sand 3,629 feet, initial production 46 bbls. per hour through three-quarters inch choke, total depth 3,743 feet. J. E. Merrick's No. 3 Neal Cooper, top sand 3,580 feet, initial production 28 bbls. in two hours by heads, total depth 3,627 feet.

Mid-Kansas Oil & Gas Co.'s No. 29 W. T. Grissom, top sand 3,625 feet, initial production 66 bbls. per hour on 2-inch lead, total depth 3,662 feet; No. 37 W. T. Grissom, top sand 3,666 feet, initial production 108 bbls. per hour on 2-inch lead, total depth 3,673 feet; No. 41 W. T. Grissom, top sand 3,646 feet, initial production 76 bbls. per hour on 2-inch lead, total depth 3,685 feet. The Texas Company's No. 13 W. W. Henry, top sand 3,640 feet, initial production 45 bbls. per hour through open 2-inch tubing, total depth 3,650 feet.

Smith County

Humble Oil & Refining Co.'s No. 8 M. C. Thompson, top sand 3,611 feet, initial production 31 bbls. in 20 minutes through three-quarters inch choke, total depth 3,616 feet. Mid-Kansas Oil & Gas Co.'s No. 12 J. H. Sharp, top sand 3,674 feet, initial production 72 bbls. per hour on 2-inch lead, total depth 3,677 feet. Sinclair Prairie Oil Co.'s No. 22-A Mayfield, top sand 3,780 feet, initial production 30 bbls. in 15 minutes through open 2½-inch tubing, total depth 3,787 feet.

Upshur County

Humble Oil & Refining Co.'s No. 6 A. J. Watkins, top sand 3,649 feet, initial production 16 bbls. in 15 minutes through three-quarters inch tubing choke, total depth 3,666 feet. Lynch & McQuaigg's No. 1 L. T. Mackey, top sand 3,705 feet, initial production 25 bbls. per hour through open tubing, total depth 3,718½ feet.

WILDCAT COMPLETIONS

Harrison County

A. E. Roscoe and others' No. 1 V. Powell, base Pecan Gap 2,670 feet, drill stem test at 3,655 feet showed salt water, dry and abandoned, total depth 3,788 feet, Lewis Watkins Survey.

Shelby County

Dunbar & Wray's No. 1 C. A. Hayden, top Pecan Gap 1,945 feet, top Blossom sand 2,535 feet, base 2,560 feet, dry and abandoned, total depth 2,850 feet. D. Yordt Survey. Sedberry and others' No. 1 Pickering Lumber Co., top Pecan Gap 1,624 feet, dry and abandoned, total depth 2,375 feet, J. Stoddard Survey. Roy Franklin Smith's No. 1 G. H. Polley, dry and abandoned, total depth 2,300 feet, D. Gonzales Survey.

Rusk County

Cranfill & Reynolds' No. 1 W. J. Weatherby, top Pecan Gap 3,200 feet, base 3,540 feet, top Austin chalk 4,005 feet, dry and abandoned, total depth 4,028 feet, Wade J. Walters Survey.

East Central Texas Wildcats

Week Ending February 6

ANDERSON COUNTY

Company, well, farm name, section and block—	Remarks:
Barclay et al's No. 1 J. C. Beard, 150 ft. out of most westerly NE cor. of 178-ac. lease, J. Trimmer Sur.	S.D. 1,518 ft.
C. R. Wilmuth et al's No. 1 N. B. Watson, 500 ft. from W line and 4,850 ft. from N of S line of survey in S½ of 129-ac. tract, M. Main Sur.	T.D. 1,538 ft.

ANGELINA COUNTY

Crosbie et al's No. 1 John C. Davis, 150 ft. from N of center of tract and survey, John H. Graham Sur.	S.D. 645 ft.
W. J. Chandler's No. 1 L. J. Dearman, 350 ft. from S and W lines of 20-ac. tract, J. T. Peavy Sur.	S.D. 1,680 ft.
H. C. Jennings et al's No. 1 Colmorgan, 150 ft. from N line and 1,300 ft. from E line of 200-ac. tract, 4 miles N of Lufkin, J. Messingill Sur.	Bldg. derrick.

BOWIE COUNTY

Roy Anderson's No. 1 Dyk.s, 2 miles W of Texarkana, M. Dykes Sur.	Drill stem test 3,033-42 ft.; showed 800 ft. salt water in 10 min.
Tom Bell et al's No. 1 C. M. Moss, 1,800 ft. from N line and 2,160 ft. from W line of 465-ac. tract and survey, O. D. Walton Sur.	S.D. 1,800 ft.

CHEROKEE COUNTY

Barkley Tate et al's No. 1 H. E. Neal, 330 ft. from N and W lines of tract, J. M. Procella Sur.	Derrick.
Hooper et al's No. 1 Doctor Overton, 330 ft. from N and E lines of tract and 330 ft. out of most easterly NE cor. of survey, Wesley Dikes Sur.	Drill stem test 3,625-56 ft.; made 17 fourbles oil, 3 fourbles mud in 13 min.; S.D.
L. J. Hopcroft et al's No. 1 J. R. Taylor, 2,600 ft. from E line and 2,000 ft. from S line of survey, G. M. Doherty Sur.	Location.
Loring Oil Co.'s No. 1 F. M. Swearingen, 330 ft. from S and E lines of 64-ac. tract, 2,800 ft. from W line and 330 ft. from S line of survey, Oliver Lund Sur., 1 mile SW of Maydelle	T.D. 4,951 ft.; hole clean; preparing to deepen.
Mid-Tex Oil Co.'s No. 1 A. Pace (formerly Clopton), 288 ft. from N line and 330 ft. from most northerly E line of 40-ac. lease, Wesley Dikes Sur.	T.D. 3,665 ft.; preparing to swab; top sand 3,662 ft.
Wilson & Stubbs' No. 1 L. Robert, 450 ft. from S and 150 ft. from W line of lease, J. B. Wolfin Sur.	Prepare to deepen; T.D. 3,600 ft.

DELTA COUNTY

Commerce Oil Co.'s No. 1 Ablowich, 150 ft. from S line and 776 ft. from W line of H. D. Jewett 52-ac. tract, E. Chick Sur.	S.D. 3,813 ft.

ELLIS COUNTY

Armstrong Bros.' No. 1 Reeves	S.D. 300 ft.
Armstrong Bros.' No. 1 John Lee Winn, 1,650 ft. from E and 150 ft. from S of Orland, Orlo Wheeler Sur.	S.D. 1,435 ft.
George Beasley's No. 1 Francis Borck, 850 ft. from SW line and 350 ft. from S and E lines of tract and grant, 11 League grant	Rig up.
Clark Brooks' No. 1 Anderson, SE cor. of 3,900-ac. tract, 10 miles SW of Waxachachie, E. C. Branch Sur.	S.D. 1,060 ft.
Paris Oil Co.'s No. 1 O. S. Bain, 1,500 ft. from S line and 300 ft. from W line of 60-ac. lease, R. M. Williams Sur.	S.D. 985 ft.

FANNIN COUNTY

Lauther Kenn et al's No. 1 Steren, center of survey, 3 miles SW of Ladonia, John Wills Sur.	Drlg. 500 ft.; chalk.

FRANKLIN COUNTY

Whiteoak Oil Co.'s No. 1 O. C. Clanton, 750 ft. from S line of survey and 150 ft. from W line of survey, S. McCreary Sur.	Rigging up.

FREESTONE COUNTY

Clyde Creighton's No. 1 Holley Bros., 354 ft. from W line and center of N and S lines of lease, A.B.M. Sur.	Drlg. 3,800 ft. in shale.

GREGG COUNTY

Bay Oil Corp.'s No. 5 J. M. Wheeler, 150 ft. due N of Pelphrey Bros.' No. 1 Wheeler, D. Ferguson Sur.	Derrick.
Burke Royalty Co.'s No. 1 Carr, center of 200-ac. tract and lease, M. McCurry Sur.	Waiting on cmt. to set 3,455 ft.
Byrd-Frost Oil Co.'s No. 3 J. J. Reppond, 330 ft. from S and E lines of 50-ac. lease, D. Sanches Sur.	Drlg. 2,470 ft.
A. P. Carr's No. 3 Richey, 150 ft. from E line of lease and N offset to Marine's No. 1 Richey, William Carlton Sur.	Waiting on cmt. to set; T.D. 3,485 ft.
Daniels & Sheppard's No. 1 W. P. Crews, N offset to Boggett & Bayer's No. 1 Herions of Jerico, J. W. Bradshaw Sur.	Waiting on cmt. to set; T.D. 3,731 ft.
Darby Petroleum Co.'s No. 6 W. H. Ritchie, E offset to A. P. Carr's No. 2 Ritchie, H. Edwards Sur.	Moving in.

(Continued on Page 39)

ROCKY MOUNTAIN RUNS

Average daily pipe line runs from fields in the Rocky Mountain territory for the week ending February 4 follow:

	Bbls.
WYOMING	
Salt Creek	20,430
Big Muddy	1,980
Badger Basin	50
Dallas-Derby	560
Dutton Creek	70
Elk Basin	500
Ferris	30
Frannie	300
Grass Creek	1,720
Hudson	380
LaBarge	1,080
Lance Creek	60
Lost Soldier	1,810
Midway	110
Osage	810
Pilot Butte	30
Rock River	1,450
Poison Spider	60
Teapot	10
Total Wyoming	31,430
MONTANA	
Buckley-Border	390
Cat Creek	760
Cut Bank	260
Dry Creek	20
Kevin-Sunburst	3,110
Lake Basin	60
Pondera	1,060
Total Montana	5,650
COLORADO	
Florence	390
Fort Collins and Wellington	700
Iles Dome	530
Moffat	580
Orchard	170
Rangely	90
Tow Creek	270
Total Colorado	2,630
NEW MEXICO	
Artesia	402
Caprock	747
Hogback	320
Jal	1,060
Table Mesa	70
Eunice	496
Hobbs	30,301
Lea	2,295
Texas-Pacific	97
Rattlesnake	790
Total New Mexico	36,477
Total Rocky Mountain area	76,187
Total previous week	75,590
Difference	597

MO.-KANS. AGREEMENT

NEW YORK, Feb. 6.—Banks representing holders of the two-year 6 per cent collateral trust notes of Missouri-Kansas-Texas Pipe Line Co. have reached an agreement with the receivers whereby the foreclosure suit filed by the Peoples-Pittsburgh Trust Co., as trustee for the notes, will be dropped and certain of the collateral securing the notes will be surrendered to holders.

The agreement, filed for approval in chancery court in Delaware and the U. S. District Court in northern Illinois, also calls for the reorganization of Kentucky Natural Gas Co., a wholly owned subsidiary of the Missouri-Kansas-Texas Pipe Line Co.

TIGHTENING PRORATION

OKLAHOMA CITY, Okla., Feb. 6.—Governor William H. Murray notified the Oklahoma State Legislature that a new oil proration bill is being prepared for introduction at an early date.

In the Senate today a bill making dealing in illegally produced oil a felony, punishable by imprisonment, was passed, signed by President Robert Burns and sent to the House of Representatives.

COURT TO REVIEW GAS CASE

The U. S. Supreme Court has ordered a review on appeal of the Montana Public Service Commission from a decision prohibiting enforcement of an order requiring the Great Northern Utilities Co. to file natural gas rates for Shelby, Mont.

Test in Northern Ector County Most Interesting; Ranger-Wichita Have 25 New Locations

By L. E. BREDBERG

Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Feb. 6.—The most interesting test in the Permian Basin at the present time, Landreth Production Co.'s No. 1 Holt, in Section 15, Block 43, Township 1n, T.&P. Survey, northern Ector County, encountered water at 4,610-27 feet, making one bailer of water every two hours, causing the owners to plug back to shut off the water, and plan shooting from below 4,305 feet where it topped the saturated lime and swabbed some oil before drilling deeper.

The test is 2½ miles northwest of the Stanolind Oil & Gas Co.'s No. 1 Cowden, the first producer in this area, and no doubt marks the northern limits of the pool which will be drilled up as the major company deems advisable, and when it needs the oil. The first producer has been setting shut in, allowed to produce at intervals into storage, for over a year. The company owns the majority of the acreage surrounding the well, and in the area considered productive.

Stanolind Oil & Gas Co.'s No. 1 Todd, Ordovician test drilling in Section 67, Block UV, G.C.&S.F. Survey, Crockett County, was drilling at 7,955 feet today, showing no or or gas.

Big Lake Oil Co. has rigged up on its No. 10-C University, in the Big Lake Field, Reagan County. This will make the eighteenth deep test to be drilled in the field.

Concho County

Concho County is to have another test in the vicinity of the Mintex Oil Co.'s No. 1 Waring, in Section 163, T.&N.O. Survey, which has pumped 5 bbls. per day from a total depth of 2,586 feet. The location has been staked on the S. A. Hartgrove ranch by B. C. Mann, of San Angelo, and materials are now being moved to the location which is in Section 6, Abstract No. 1,300, Certificate No. 1-59. Arkansas Fuel Oil Co.'s small gasser was drilled a half mile to the south and on the Hartgrove ranch previously, and with the showing made in the Waring well, this new test becomes considerably interesting.

Howard-Glasscock

The western limits of the Howard-Glasscock County area have apparently been defined by Noel T. Lawson and others' No. 2-B Edwards, in Section 16, Block 33, Township 2s, T.&P. Survey. The test encountered a hole full of sulphur water from 2,189-92 feet and was temporarily shut down. It is the farthest west test in the area, except for Llano Oil Co.'s No. 1 Edwards which is drilling below 2,150 feet.

Lawson's No. 2-B Edwards encountered an oil showing just before striking the water, and may be plugged back to shoot that showing in an effort to make a small producer out of the test.

RANGER AND WICHITA FALLS

There were 25 locations staked in these two districts during the week, including 4 deep tests, one of which will be drilled for gas north of Gordon in the gas area of Palo Pinto County. One will be a 2,500-foot test in Stephens County, one a 2,000-foot test south of Archer City in Archer County, and one a deep cable tool test for Brown County.

Lido Oil Co.'s No. 4-D Waggoner, in Section 35, Block 2, H.&T.C. Survey, in the Waggoner Pasture Pool, Wilbarger County, is now making 101 bbls. of oil per day and 25 bbls. of water.

The Wichita Falls district received a welcome boost in allowable this week, the Railroad Commission increasing the daily allowable from 50,000 bbls. to 56,000 bbls. to care for marginal well allowables, which the previous allowable did not accommodate. This district has been held to a minimum at all times, the Railroad Commission as well as the purchasers cutting the allowable and takings to where it became impossible to operate many of the small pumpers, consequently several thousand wells have been abandoned in the district during the past 18 months.

T. G. Shaw and others' No. 2 J. Marshall in the northwest corner of T.E.&L. Survey No. 3,401, Young County, marks a 4,500-foot extension northwest, east and northeast of production. It topped an oil sand at 880 feet and was shut down at 881 feet, filling 600 feet with oil in six hours and looking good for at least 100 bbls. per day. It was the most interesting well of the week in this district.

C. L. Abercrombie's No. 1 fee in Block 154, Harris Subdivision of the Club ranch, Archer County, will be drilled to 2,000 feet in an area in which the first shallow saturated lime producer was completed in the county.

Continental Oil Co. has announced it would take the full daily allowable from wells in this district, making the order retroactive to February 1. The Stanolind Pipe Line Co. will do the same with the exception of Young County, where it will continue to take only six-sevenths of the oil. It is now taking around 1,000 bbls. per day from this county.

The Condor Petroleum Co. of Abilene, Tex., is laying 2 miles of 2-inch from its No. 1 Sayles in Jones County to the Abilene-Anson Highway, where it will build a loading rack for trucks. The well is making 300 bbls. per day. The oil will be trucked to nearby refineries.

PANHANDLE DISTRICT

The Railroad Commission will hold a hearing at Amarillo on February 17 on application of the Shamrock Oil & Gas Co. to separate the northeast part of Moore County from the remainder of the Panhandle Field for proration purposes.

J. Gordon Burch and others' No. 1 Langham, 1 mile west of LeFors in Section 1, Block B-2, H.&G.N. Survey, ignited following an explosion on February 2 and is to be shot in an effort to snuff out the flame. It is estimated to be making between 10,000,000 and 15,000,000 feet of gas.

The crew were preparing to run 6-inch casing and cement it at 2,500 feet when a rock was believed to have been blown out of the casing, causing a spark which ignited the gas. The crew of five were all slightly injured.

The John W. Moore Construction Co. of Lubbock is progressing with plans to lay 120 miles of 8-inch gas line from the Panhandle south to Lubbock and other towns on the plains, the company to lay the main line only and furnish gas at the city gates, the city to take over the distribution system and business. Over 4,000 residents of the city of Lubbock are said to have signed for municipal gas.

PANHANDLE COMPLETIONS

Gray County

The Texas Company's No. 2 Barrett, top pay 3,118 feet, initial production 248 bbls. daily through tubing, total depth 3,127 feet.

WEST TEXAS COMPLETIONS

Crockett County

Continental Oil Co.'s No. 1-A-26 Todd, top pay 1,545 feet, initial production 40 bbls. per day, 2 per cent water, total depth 1,548 feet.

Fisher County

The Texas Company's No. 1 Ganaway, elevation 1,785 feet, dry and abandoned, total depth 3,820 feet. Southern Oil Corp.'s No. 1 Pardue, top pay 3,105 feet, elevation 1,793 feet, initial production 750 bbls., total depth 3,105 feet.

Garza County

Richards' No. 1 Connell, initial production 15 bbls. oil and 19 bbls. water in 24 hours, total depth 2,948 feet.

Glasscock County

Phillips Petroleum Co.'s No. 2 Baker, top pay 2,114 feet, initial production 1,401 bbls. in 24 hours, total depth 2,124 feet.

Upton County

H. M. Clark and others' No. 1 Love, top pay 2,250 feet, initial production 144 bbls. daily, total depth 2,267 feet.

Ward County

Gulf Production Co.'s No. 17 O'Brien, initial production 226 bbls. oil through 2-inch tubing, total depth 2,752 feet; No. 23 O'Brien, initial production 187 bbls. per day through 2-inch tubing, total depth 2,773 feet.

Wildcat Operations in West Texas

Week Ending February 6

BREWSTER COUNTY

Company, well, farm name, section and block—	Remarks:
Brewster Oil Co.'s No. 1 fee, 2,640 ft. S and 2,598 ft. E of NW cor., Sec. 45, Blk. G-15, G.C.&S.F. Sur.	S.D. 1,935 ft.
E. L. Chapman's No. 1 Skinner, C SW SE Sec. 100, Blk. 3, G.C.&S.F. Sur.	S.D. 1,302 ft.
Joiner's No. 1 McIntire, 853 ft. from S and 2,390 ft. from E, Sec. 31, Blk. 352, W. J. Mitchell Sur.	Drlg. 600 ft.
Trans-Pecos Oil & Gas Co.'s No. 1 Jones, 930 ft. from N and 2,500 ft. from E of Sec. 18, Blk. G-15, G.C.& S.F. Sur.	S.D. 2,900 ft.
Van McPhail's No. 1 McIntyre, SE cor. Sec. 59, Blk. 352, 7 miles south Alpine	S.D. 1,750 ft.

CONCHO COUNTY

Beasley et al's No. 1 Waring Estate, 400 ft. from N and E, Sec. 163, T.&N.O. Sur.	T.D. 2,586 ft.; pumping 5 bbls. oil per day and some water.
Mann et al's No. 1 Hargrove, 150 ft. from N and 75 ft. from E, Sec. 6, T.&N.O. Sur.	Location.
Simmons et al's No. 1 Schultz, 150 ft. from W and center N and S of E half of J. Weber Sur., Abst. 154.	S.D. 1,500 ft.

CROCKETT COUNTY

Chambers et al's No. 1 Hoover, 1,650 ft. N and 330 ft. from E, Sec. 1, Blk. FF, B.&B. Sur.	S.D. 2,100 ft.; shot second time; testing.
Continental Oil Co.'s No. 1 Todd, 660 ft. from S and E of Sec. 23, Blk. WX, G.C.&S.F. Sur.	Drlg. 1,975 ft.
Continental Oil Co.'s No. 1-B Todd, 660 ft. from N and E, Sec. 31, Blk. WX	Underreaming csg. 475 ft.
Doleman & Moore's No. 1 Ferner, 2,135 ft. from N and 1,485 ft. from E of Sec. 36, Blk. 2, L.&G.N. Sur.	Spudded and S.D.
Stanolind Oil & Gas Co. et al's No. 1 Todd, 1,370 ft. from N and 1,320 ft. from E, Sec. 67, Blk. UV, G.C.&R.F. Sur.	Drlg. 7,955 ft.
Stanolind O. & G. Co.'s No. 2 Todd, 660 ft. from N and W, Sec. 28, Blk. WX	Drlg. 800 ft.
The Texas Company's No. 1 B. B. Ingham, 330 ft. from S and 2,330 ft. from E line, Sec. 36½, I.&G.N. Sur.	T.D. 2,071 ft.
J. D. Young Co.'s No. 1 Shannon, 330 ft. from N and W, Sec. 35, Blk. 1, G.C.&S.F. Sur.	Running 8¼-in. csg. 2,071 ft.

CULBERSON COUNTY

Harris & Haun's No. 1 fee	S.D. 2,670 ft.
Milton-Dorsey's No. 1 Biggs, 4,181 ft. from N and 150 ft. from E, Sec. 2, Blk. 112, P.S.L. Sur.	Location.

ECTOR COUNTY

J. M. Cooper et al's No. 1 Cowden, 2,310 ft. from S and W, Sec. 16, Blk. 43, Twp. 2s, T.&P. Sur.	Location.
L. C. Harrison et al's No. 1 Addis, 330 ft. from N and 1,320 ft. from W, Sec. 35, Blk. 43, Twp. 2s, T.&P. Sur.	T.D. 4,061 ft.; flowing 450 bbls. day.
Landreth Prod. Co.'s Holt, C SW of SE Sec. 15, Blk. 43, Twp. 1n, T.&P. Sur.	Drlg. 4,610 ft.
Stanolind O. & G. Co.'s No. 1 Cowden, 330 ft. from S and 1,320 ft. from W, Sec. 26, Blk. 43, Twp. 2s, T.&P. Sur.	Drlg. 2,042 ft.
Thomas et al's No. 1 Edwards, 330 ft. from S, 2,310 ft. from E, Sec. 38, Blk. 43, Twp. 3s, T.&P. Sur.	T.D. 3,200 ft.; to cement csg.
H. F. Wurtz' No. 1 E. A. Ibbetson et al, 330 ft. from N and E lines of NW Sec. 16, Blk. 48, Twp. 3s, G. M. M.Br.&A. Sur.	S.D. 3,605 ft.

EL PASO COUNTY

Tri-State Oil Co.'s No. 1 Bobadella, 1,325 ft. from S and E lines Sur. 254, S.P. No. 7,847	S.D. 3,190 ft.; fishing 3,190 ft.

(Continued on Page 40)

February Allowables in West Texas Pools

MIDLAND, Tex., Feb. 4.—The railroad commission made no change in the allowable production of the Winkler County or Ector County Pools in February, but placed a figure of 60,452 bbls. per day as the allowable production of the Pecos Field in Yates County, and 14,000 bbls. per day in Howard-Glasscock Counties. The Yates Pool is credited with a 12-hour potential of 2,286,472 bbls. The statistical position of the Yates Pool by companies is as follows:

Company—	Wells	12-hour potential bbls.	Allowed daily production bbls.
California	63	396,474	7,988
Cosby	5	1,763	183
Gulf	58	235,942	8,412
Humble	20	23,277	1,374
Cardinal	1	25	25
Kirby-Edson	1	45	45
Stanolind	25	43,034	1,981
Stanolind and Continental	18	149,341	2,857
Continental	7	23,284	358
Mid-Kansas	128	1,211,323	29,491
Grayburg	9	176	176
Plymouth	2	30	30
Phillips	12	5,968	863
Shell	36	76,747	2,684
Savoy	4	2,123	112
Simms	14	116,551	3,433
Skelly	2	138	94
Easter-McCurdy	2	178	178
New State	1	55	55
Total	406	2,286,472	60,452

East Central Texas Wildcats

(Continued from Page 37)

Joe Edgar et al's No. 2 Stinchcomb, 79 ft. N and 36.4 ft. W of most northerly SW cor. of Stanolind's Key lease, W. H. Hart Sur. ....Moving in.

E. & F. Oil Co.'s No. 2 M. Jackson, 330 ft. from S line and center of E and W lines of 16.66-ac. lease, G. F. Penn Sur. ....Derrick.

Faith Oil Co.'s No. 4 J. C. Barrett, B. W. Witcher Sur. ..Rig up and S.D.

S. A. Gaskill's No. 2 Godfrey, SW offset to Waggoner & McConnell's No. 1 Smith in Blk. 82, M. Dillard Sur. ..Drlg. 450 ft.

Lewis Godlin's No. 1 E. L. Walker, 330 ft. N of road, 330 ft. from E line of 80.2-ac. tract, M. Dillard Sur. ...Derrick.

Gulf Production Co.'s No. 34 J. C. Judge, 610 ft. E and 330 ft. S of most northerly NW cor. of lease, F. W. Johnson Sur. ....Rigging up.

P. L. Hoffman's No. 3 Phillips, 330 ft. from W line and center of N and S lines of lease, D. Ferguson Sur. ....Rig up.

Humble Oil & Refining Co.'s No. 19 Hughes, 1,076 ft. S and 380 ft. from E lines of Tract No. 2, D. Sanches Sur. ....Derrick.

Humble Oil & Refining Co.'s No. 10 H. M. Lawrence, 1,515 ft. N and center of E and W lines of lease, D. Ferguson Sur. ....Derrick.

Humble Oil & Refining Co.'s No. 4 W. C. Mackey, 300 ft. from N and 330 ft. from W lines of lease, H. F. Rodgers Sur. ....Drlg. 1,400 ft.

B. K. Isaacs, trustee's No. 1-B T. B. Harris, S of Woodley's No. 1 in W. H. Castleberry Sur. ....Drlg. 2,300 ft.

E. M. Jones' No. 1 L. D. Crim, 330 ft. from N line and center of E and W lines of 10-ac. tract, M. V. Winkle Sur. ....Waiting on standard rig 3,650 ft.

Edwin Lacy's No. 2 fee, center of 1½-ac. tract, M. V. Winkle Sur. ....Location.

Jack T. Life's No. 1 B. Moore, center of 1.75-ac. lease, D. Moore Sur. ....Derrick.

Lion Oil & Refining Co.'s No. 3 Evans, S offset to Sinclair Prairie's No. 10 Williams, P. McAnneily Sur. ..Derrick.

Magnolia Petroleum Co.'s No. 3 J. H. Beavers, 218 ft. from N line and 272 ft. from E line of lease, T. R. Rains Sur. ....Location.

Magnolia Petroleum Co.'s No. 4 C. Jones, 330 ft. from N and W lines of lease, G. W. Hooper Sur. ....Location.

J. H. Massie et al's No. 5 Molly Finn, 660 ft. N of No. 4 and center of E and W lines of lease, H. Edwards Sur. ....Waiting on cmt.

McGee et al's No. 3 M. O. Sheppard, offset to Showers & Moncrief's No. 1 Sheppard, G. R. Rains Sur. ....Waiting on cmt. to set; T.D. 3,542 ft.

J. C. Means' No. 4 W. D. Luce, SW offset to Blue Star's No. 3-G, E. L. Walker Sur. ....Rig up.

Midfield Oil Co.'s No. 2 Sample, 300 ft. S of East Texas' No. 1 Sample, W. P. Chisum Sur. ....Waiting on cmt. to set; T.D. 3,722 ft.

Jew Miller's No. 1 Andrews, 235 ft. E and 188 ft. N of Shell's J. A. Knowles' No. 2, W. F. Hyde Sur. ....Drlg. 3,300 ft.

B. F. Phillips et al's No. 1 Church Lot, center of 75-ac. lease, D. Sanches Sur. ....W.O.C. 3,676 ft.

Rajo Oil Co.'s No. 2 Barrett, 378 ft. from N line and 330 ft. from W line of lease, B. W. Witcher Sur. ..Derrick.

Ray Drilling Co.'s No. 5 L. H. Tubbs, 320 ft. from E line of lease, D. Sanches Sur. ....Swabbing; T.D. 3,607 ft.

Stroube & Stroube's No. 3 J. R. Bealle, 185 ft. from E line and 705 ft. S of No. 2, M. V. Winkle Sur. ....Testing; T.D. 3,560 ft.

Sun Oil Co.'s No. 2 A. G. North, 318 ft. from W line of lease and 651 ft. from No. 1, S. Baggett Sur. ....Waiting on cmt. to set; T.D. 3,486 ft.

W. C. Turnbow's No. 2 McKinley, 125 ft. N and 420 ft. E of NE cor. of Yount Lee's Harley lease, D. Sanches Sur. ....Derrick.

Universal Oil & Gas Co.'s No. 2 Adkins, 750 ft. S of No. 1, D. Dainwood Sur. ....Waiting on cmt. to set 3,647 ft.

Y Oil Co.'s No. 2 A. M. Kinsel, 330 ft. from E line and center of N and S lines of lease, H. Kirk Sur. ..T.D. 3,661 ft.; will not flow; waiting orders.

HENDERSON COUNTY

Brownsboro Oil Co.'s No. 1 J. T. Debman, center of N 40 acres of Debman 80-ac. tract, J. N. Salvin Sur. ....Drlg. 3,080 ft.

Dr. J. T. Kennon et al's No. 1 Rowe & Baker, 1,320 ft. from N line and 150 ft. from W line of survey and tract, Josiah T. Childress Sur. ....S.D. 920 ft.

H. H. Meyer's No. 1 M. E. Olson, 2 miles S of Brownsboro tract in NW cor. of survey, George Wilson Sur. ....S.D. 3,748 ft.

HILL COUNTY

T. J. Spikes' No. 1 M. H. Davis, 150 ft. from S and E lines of 65-ac. tract, H. R. Alexander Sur. ....S.D. 1,528 ft.

HOPKINS COUNTY

Burgess and Sinson's No. 1 First Natl. Bank, 470 ft. N and W of SE cor. D. Buie Sur., but located in the H.E.P.&P.R.R. Sur. ....S.D. 2,155 ft.

HUNT COUNTY

A. Kelsey et al's No. 1 W. R. Berry, 450 ft. from S line and 300 ft. from E line of 139-ac. tract, J. Roads Sur. ....Location.

KAUFMAN COUNTY

Eley-Bentley-Brewer et al's No. 1 J. B. Hunter, 300 ft. from S line and 150 ft. from SE line of 500-ac. tract, 4 miles S of Terrell, R. Sowell Sur. ....Derrick.

LAMAR COUNTY

Doyle and Jondeau's No. 1 Martin, 990 ft. from N line and 330 ft. from E line of tract, Joseph Deck Sur. ....Rig up; T.D. 2,446 ft.

LEON COUNTY

Alladay et al's No. 1 W. R. Thompson, 330 ft. from N line of survey and 330 ft. from E line of 98-ac. tract, N. M. Allen, Sur. ....S.D. 2,170 ft.

Shell-Penn & Black's No. 1 W. M. Phillips ....Drlg. plug. 6,142 ft.

LIMESTONE COUNTY

Miller Drilling Co. and Joiner's No. 1 J. A. Stephenson, 400 ft. from S line and 300 ft. from E line of lease, one-fourth mile SE of Kosse, Charles Welch Sur. ....S.D. 3,140 ft.

MORRIS COUNTY

Grover Hart's No. 1 Walcott and Lott, 250 ft. from N line and 320 ft. from E line of survey, 3 miles S of Carson, B. A. Russell Sur. ....S.D. 1,896 ft.

Joiner & Harris Drilling Co.'s No. 1 Clayton Brown, 1,625 ft. N. of most easterly SW cor. of survey, William M. Coffey Sur. ....S.D. 1,550 ft.

Leonard's (Tucker-Fullwood) No. 1 P. M. Staggers, 450 ft. from N line and 150 ft. from E line of 65-5-ac. tract, J. D. Nelson Sur. ....Fishing; T.D. 3,679 ft.

RED RIVER COUNTY

Ajo Oil Co.'s No. 1 Nickels & Daniels, center of S 780 acres of 1,808-ac. tract, 8 miles N of English, Hugh B. Shaw Sur. ....Location.

Concord Oil Co.'s No. 1 J. R. Dallahunty, 500 ft. from N of Isaac Moore Sur. and 200 ft. E of E line of Robert Glass Sur. ....S.D. 2,827 ft.

L. G. Priest's No. 1 R. W. Peck, 900 ft. N and 500 ft. S of southerly SE cor. of 220-ac. tract, A. Wagley Sur. ....S.D. 1,302 ft.

ROCKWALL COUNTY

Bucanner Oil Co.'s No. 1 H. L. Lofland, center of 69-ac. tract in W. M. Bird Sur. ....Set 10-in. csg. 120 ft.; S.D.

RUSK COUNTY

G. S. Anderson's No. 5 Frederick, 300 ft. from S line of lease and midway between Nos. 2 and 3 and N offset to Lion's No. 3 Jobe, Juan Ximenes Sur. ..Derrick.

Big Indian Oil Co.'s No. 1 Joe Lee, 172 ft. from S line and 990 ft. from W line of 24-ac. lease, Peter Tipps Sur. ....Swabbed through tubing showed some salt water; S.D. 3,646 ft.

T. E. Castle's No. 1 R. H. Gary estate, 3,960 ft. from N line and 5,280 ft. from W line of survey, 10 miles S of Henderson, A. Latham Sur. ....S.D. 3,812 ft.

Fair & Thompson's No. 2 Bradford, 150 ft. from N and E lines of E 16.5-ac. lease, Juan Ximenes Sur. ....Rig up.

Griffin & Barnes' No. 1 fee, 12 ft. from S and W lines of 2-ac. tract, J. B. De Cadena Sur. ....Set surface csg.

Gulf Production Co.'s No. 2 W. A. Hindman, 270 ft. S and 123 ft. E from NW cor. of lease, W. W. Simms Sur. ....Location.

Harris and Russell's No. 1 T. W. Harris, 330 ft. from S line and 660 ft. from W line of most southerly SW cor. of 160-ac. tract, 3 miles SW of Henderson, W. G. Davis Sur. ....Derrick.

Hathaway et al's No. 1 Gray, J. M. McLain Sur. ....S.D. 3,905 ft.

H. B. W. Oil Co.'s No. 3 Redwine, 150 ft. from E line and center of Payne's No. 1 Redwine, Juan Ximenes Sur. ....Derrick.

Horseshoe Synd.'s No. 2 W. P. Brightwell, NE offset to East Texas' No. 5 A. Livins, R. E. Winn Sur. ....Swabbing; T.D. 3,684 ft.

Hudson's No. 1 Jeff Phillips, 150 ft. from N line of survey and 640 ft. from W line of 100-ac. tract, 4 miles SE of Minden, Nepomucene Villarea Sur. ....S.D. 1,500 ft.

Humble Oil & Refining Co.'s No. 6 J. Wooley, 330 ft. from S line and 251 ft. from W line of 100-ac. lease, T. J. Martin Sur. ....Waiting on cmt. to set; T.D. 3,774 ft.

Humble Oil & Refining Co.'s No. 2 C. H. Hodge, 330 ft. from N and W lines of lease, J. C. Barnett Sur. ....Derrick.

Humble Oil & Refining Co.'s No. 1 J. D. Taylor, 330 ft. from W line of lease and S offset to No. 1 Hedge ....Derrick.

Humble Oil & Refining Co.'s No. 2 M. A. Neal, 208 ft. from S line and 108 ft. from W line of 17.67-ac. tract, J. Darley Sur. ....Testing; T.D. 3,730 ft.

Iotex Oil Co.'s No. 3 Tom Beall, W offset to Ward Oil Co.'s No. 3 Beall, P. W. Holmes Sur. ....Derrick.

J. Jeagen's No. 1 Needham, 330 ft. from N line of lease and 330 ft. from NE and 400 ft. from SE of survey, J. H. Chambers Sur. ....S.D. 1,414 ft.

Jenkins Bros.' No. 1 Daisy Bradford, 150 ft. from W line of 45-ac. tract, Juan Ximenes Sur. ....Rigging up standard tools; failed to flow when swabbed; top sand 3,520 ft.; T.D. 3,605 ft.

Jordan & Ramsey's No. 1 L. W. Prior, 330 ft. from N line and 607 ft. from E line of 53-ac. lease, Walker Pettit Sur. ....Derrick.

Kimble & Acre's No. 1 Frederick, 150 ft. from S line and center of E and W lines of 10-ac. lease, Juan Ximenes Sur. ....Derrick.

Mid-Kansas Oil & Gas Co.'s No. 5 Jim Lunsford, 78 ft. from N line and 898.4 ft. from most easterly E line of lease, J. B. De Cadena Sur. ....Location.

Olson Bros.' No. 5 J. T. Brown, 200 ft. from N line and 700 ft. from W line of lease, M. J. Pru Sur. ....Derrick.

Orr et al's No. 1 J. C. Hale, 590 ft. E and 330 ft. S of NW cor. of 50-ac. tract, M. V. Pena Sur. ....S. D. 3,675 ft.

Overton Refining's No. 2 Maxwell, 70 ft. S of J. E. Oliver's No. 1 G. Pool, F. Cordova Sur. ....Waiting on cmt. to set 3,778 ft.

Paulett et al's No. 1 Ed Sparks, 350 ft. from E, 150 ft. from S of survey, L. C. Riggs Sur. ....S.D. 1,465 ft.

Sandifer et al's No. 1 L. J. Pinkston, S offset to Champlin and Bass' No. 1 Pinkston, J. B. De Cadena Sur. ....Waiting on cmt. to set 3,622 ft.

Ross Seward's No. 1 Burton, J. J. Y'Barbo Sur. ....T.D. 3,387 ft.

Sibling & Williams' No. 2 Goforth, 407 ft. S of No. 2 and center of E and W lines of lease, J. Lindley Sur. ....Waiting on cmt. to set; T.D. 3,749 ft.

Smith and Sikes' No. 2 W. H. Frederick, 150 ft. from S and E lines of 10-ac. lease, Juan Ximenes Sur. ....Rigging up standard tools and swabbing; T.D. 3,675 ft.

Snyder et al's No. 2 Stewart, 174 ft. NW of No. 1 and 190 ft. SE of C. L. Archer's No. 1 J. H. Stewart, John Womack Sur. ....Derrick.

Stanolind Oil & Gas Co.'s No. 2 Bettie Coleman, 1,034 ft. from S line and 330 ft. from W line of lease, J. Burke Sur. ....Waiting on cmt. to set; T.D. 3,653 ft.

Sun Oil Co.'s No. 5 R. J. Hendon, 330 ft. from N and E lines of 120-ac. lease, Juan Ximenes Sur. ....Waiting on cmt. to set; T.D. 3,542 ft.

Trico Oil Co.'s No. 1 D. Bradford, 200 ft. N of highway and 150 ft. W of most westerly creek, Juan Ximenes Sur. ....Derrick.

C. A. Walker's No. 1 Nealy Johnson, 330 ft. from N and E lines of 13-ac. tract, W. T. Tutt Sur. ....Drlg. 2,100 ft.

Ward Oil Co.'s No. 6 Giles, 150 ft. from E line and center of N and S line of 40-ac. lease, M. J. Pru Sur. ....S.D. 3,505 ft.

SMITH COUNTY

Florence Oil Co.'s No. 1 Cole (old well drilled deeper), 150 ft. from S line of lease, J. Jordan Sur. ....Fishing tubing; T.D. 3,754 ft.

Long Drilling Co.'s No. 3 G. A. Turner, D. W. Campbell Sur. ....Derrick.

A. McCutcheon's No. 2 Temple Store, 330 ft. from W line and midway between N and S lines of lease, D. Shaw Sur. ....Derrick.

McRabie et al's No. 1 C. P. Hamilton, 330 ft. from S and E lines of 255-ac. tract, Jackson Rector Sur. ..Rig up and S.D.

Mundt et al's No. 1 W. E. Murray, 330 ft. from S and E lines of lease, 5 miles SE of Tyler, Marshall Wynn Sur. ....Fishing; T.D. 4,875 ft.

M. M. Rowan et al's No. 1 Gibbons Mfg. Co., 5,900 ft. from S line and 3,050 ft. from W line of survey ....T.D. 3,610 ft.; S.D.

Sinclair Prairie Oil Co.'s No. 6 Patterson, 330 ft. from N and W lines of lease, J. Vargas Sur. ....Temp. abnd.; T.D. 3,753 ft.

TITUS COUNTY

Perry V. Cook's No. 1 M. C. Rogers, center of SW of Moore Sur. ....T.D. 4,212 ft.

UPSHUR COUNTY

W. C. Bentley's No. 1 Brawley heirs, 630 ft. E and 170 ft. N of NW cor. of Sun's Hargraves lease, M. Mann Sur. ....Set surface csg.

Clark & Cowden's No. 3 J. W. Frie, 330 ft. from most easterly E line and center of N and S lines of lease, D. Ferguson Sur. ....Rig up.

H. W. Elliott et al's No. 2 W. H. Reid, 330 ft. from N line and E line of 24-ac. lease, M. Mann Sur. ....Waiting on cmt. to set; T.D. 3,682 ft.

F. A. Fuller et al's No. 1 Shattesworth, 330 ft. from S and E lines of W 50 acres of 100-ac. tract, James Dunn Sur. ....Oil sand 3,727-45 ft.; S.D.; waiting orders.

Pat Hudson et al's No. 1 D. F. Smith, 330 ft. out of SE cor. of W 100 acres of the N 200 acres of the 272-ac. lease, 3 miles E and 1½ miles N of Cranfill & Reynolds' No. 1 Rash, John Denson Sur. ....Waiting orders 3,710 ft.

Humble Oil & Refining Co.'s No. 4 E. W. Smith, 330 ft. from N and E lines of 51.4-ac. lease, H. Edwards Sur. ....Rigging up.

Magnolia Petroleum Co.'s No. 12 Hampton, 477 ft. from CWL and 177 ft. from CNL of lease, D. Ferguson Sur. ....Moving in.
George Pace et al's No. 1 D. C. Shelton, N offset to C. L. Brown's No. 1 D. C. Shelton, William King Sur. ....Rig up.
Taubel & Lyons' No. 1 W. H. Duffy, 330 ft. from N and E lines of NW 50-ac. tract, Starr Sur. ....S.D. 3,875 ft.; white sand.
Travis & Weir's No. 1 L. P. League, 330 ft. from N line and 330 ft. from W line of N 13 acres of L. P. League Sur. ....Derrick.
Wadley and Evans' No. 1 W. S. Jones, 330 ft. from S and E lines of 160-ac. lease, James M. Dunn Sur. ....T.D. 3,690 ft.; S.D.
Wadley & Lyons' No. 1 Hall, 150 ft. out of NW cor. of H. E. Hall 14-ac. tract, William McKey Sur. ....Temp. abnd. 3,784 ft.
Waggoner and McConnell's No. 3 Williams, 330 ft. from E line and center of N and S lines of 22-ac. lease, McKinley & Williams Sur. ....Waiting on cmt. to set; T.D. 3,648 ft.
J. E. Werby's No. 3 Read, 330 ft. from S line of lease and 490 ft. W of No. 1 T. Hopkins Sur. ....T.D. 2,871 ft.; S.D.

VAN ZANDT COUNTY

Barton et al's No. 1 C. L. Hubbard, 600 ft. out of NE cor. of Hubbard 226-ac. tract, 3¼ miles S of Canton, M. J. De Cadena Sur. ....S.D. 3,355 ft.
Kelly O. & G. Co.'s No. 1 Lemsford, center of Lemsford tract, John Conner Sur. ....S.D. 2,300 ft.
Killum & Chisum's No. 1 J. J. Goode, 150 ft. from N line and 375 ft. from E line of lease, 5 miles SW of Van, David Rose Sur. ....Derrick.
Lyman et al's No. 1 J. C. Stewart, 150 ft. from N line and 650 ft. from W line of 90-ac. tract, A. McPhail Sur. ....T.D. 2,731 ft.
Peden-Cison's No. 1 W. S. Brannon, 205 ft. from N and 140 ft. from W lines of 45-ac. tract, 2½ miles N of John Goodman Sur. ....Prepare to test 1,250 ft.
Pure Oil Co.'s No. 4 B. W. Russell, 150 ft. S of N line and 225 ft. W of E line of 30-ac. tract, David Rose Sur. ....Testing 2,966 ft.
Pure Oil Co.'s No. 5 L. A. Smith, 250 ft. S of N line and 250 ft. E of W line of lease in John Walling Sur. ....Rigging up.
Pure Oil Co.'s No. 6 L. D. Miller, 225 ft. E of W lines and 250 ft. S of N line of lease in John Walling Sur. ....Location.
A. C. Rowan's No. 1 W. E. Price, 150 ft. from N line and 150 ft. from W line of 38-ac. tract, John Walling Sur. ....S.D. 2,942 ft.
Roy Stumpff's No. 1 M. I. Riggs, 169 ft. from E line and 350 ft. from S line of tract No. 3 and 330 ft. from E line of lease, 4 miles NE of Van, William Daniel Sur. ....Rig up and S.D.
H. C. Teague et al's No. 1 C. W. Morris, 1,000 ft. from N line and 300 ft. from E line of 160-ac. tract, 5 miles SE of Ben Wheeler, C. L. Morrison Sur. ....T.D. 3,097 ft.; S.D.
The Texas Company's No. 4 J. A. Bracken, 217 ft. W of E line and 250 ft. N of S line of lease, John Walling Sur. ....Location.
Van Oil Association's No. 1 Tankersley, 200 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ....T.D. 2,850 ft.
C. O. Weir's No. 1 W. B. Tunnell, 150 ft. from N and W lines of lease, A. H. Wiley Sur. ....T.D. 3,003 ft.

WOOD COUNTY

De Canther's No. 1 N. L. McLain, 350 ft. from N line and 642 ft. from E line of tract, Sam Brooks Sur. ....S.D. 3,846 ft.
Hull & Short's No. 1 T. H. Peterson, 600 ft. from S line and 300 ft. from E line of 320-ac. tract and survey, 4 miles E of Mineola, W. B. McNutt Sur. ....S.D. 2,850 ft.
Wood County Dev. Co.'s No. 1 Davis, approximately 150 ft. from S line of 160-ac. tract and 2¼ miles S of Kantes in Sarah McDonald Sur. ....S.D. 4,384 ft.

Wildcat Operations in West Texas

(Continued from Page 38)

FISHER COUNTY

O'Donnell's No. 1 Pardue, 330 ft. from S and E lines of N half of SW Sec. 202, B.B.B.&C. Sur. ....T.D. 1,180 ft.; ran 10-in. csg.
Southern Oil Co.'s No. 1 Beavers, 330 ft. from W and 660 ft. from S of S half of SW Sec. 193, B.B.B.&C. Sur. ....Spudded and S.D.

GARZA COUNTY

Southern Oil Corp.'s No. 1 Boren, 990 ft. N, 660 ft. E, Sec. 36, Blk. 5, H.&G.N. Sur. ....Drlg. 610 ft.

GLASSCOCK COUNTY

Lawson's No. 2-B Edwards, 330 ft. from S and W, Sec. 16, Blk. 33, Twp. 2s, T.&P. Sur. ....To plug; T.D. 2,192 ft.
Llano Oil & Dev. Co.'s No. 1 Edwards, 330 ft. S and E, Sec. 17, Blk. 33, Twp. 2s, T.&P. Sur. ....Drlg. 2,146 ft.

HOWARD COUNTY

Eppenauer et al's No. 1 Leatherwood, C of SE of NW, Sec. 25, Blk. 33, Twp. 1n, T.&P. Sur. ....Location.
F.H.E. Oil Co.'s No. 1 Dodge, 330 ft. from N and E, Sec. 15, Blk. 31, Twp. 1s, T.&P. Sur. ....Drlg. 2,646 ft.
Harrison et al's No. 3 Denman, 2,310 ft. from N and 330 ft. from E, Sec. 10, Blk. 30 ....T.D. 2,858 ft.; putting on pump.
Myers et al's No. 1 Denman, 2,305 ft. from S and 2,320 ft. from E, Sec. 14, Blk. 30, Twp. 1s, T.&P. Sur. ....Drlg. by tools 1,505 ft.
Mid-Continent Oil & Gas Co.'s No. 1 Denman, 990 ft. from S and 330 ft. from E, Sec. 10, Blk. 30, Twp. 1s, T.&P. Sur. ....T.D. 2,813 ft; putting on pump.
Sinclair Prairie Oil Co.'s No. 4 Dodge, 960 ft. from S and 330 ft. from W, Sec. 11, Blk. 30, Twp. 2s, T.&P. Sur. ....Drlg. cement 1,900 ft.; T.D. 2,280 ft.
Sinclair Prairie Oil Co.'s No. 5 Dodge, 2,310 ft. from N and 330 ft. from W, Sec. 11, Blk. 30, Twp. 1s, T.&P. Sur. ....Machine.
Southern Oil Corp.'s No. 1 Williams, 430 ft. from N and 330 ft. from W of S 123 acres of W half Sec. 43, Blk. 30, Twp. 1n, T.&P. Sur. ....S.D. 750 ft.

HUDSPETH COUNTY

Pattilo-Welsh's No. 1 Briggs ....S.D. 1,135 ft.; may plug.

IRION COUNTY

Bristow et al's No. 2 Nutt, 2,550 ft. N, 1,000 ft. W, Sec. 6, Gonzales County School Lands Sur. ....S.D. 435 ft.
Straughn et al's No. 1 Kaiser, 1,930 ft. from N and 1,390 ft. from W, Sec. 69, H. Cooper Sur. ....Drlg. 1,135 ft.

JONES COUNTY

Abers et al's No. 1 Burton, 150 ft. from S and 175 ft. from E of 43.4-ac. tract in G. Martinez Sur. ....S.D. 1,005 ft.; temp. abnd.
Condor Pet. Co.'s No. 1 Holt, 1,900 ft. from S and 1,800 ft. from W, Sec. 4, Blk. 20, T.&P. Sur. ....Location.
Dyer's No. 1 Odom, 200 ft. from S and 170 ft. from W of N 320 acres, G. Zumwalt Sur. ....Rig.
Johnson's No. 1 Huddleston, 165 ft. from S and W of N half of N half of Sec. 39, Blk. 12, T.&P. Sur. ....T.D. 2,290 ft.
Smart & Reynold's No. 1 Reynolds, 2,500 ft. from N and 150 ft. from W, Sec. 2, W. T. Scott Sur. No. 3 ....Fishing 1,474 ft.
C. S. Spelling et al's No. 1 Lillie, 300 ft. from M and W Sec. 4, E. Miller Sur. No. 2 ....S.D. 2,020 ft.
Southern Oil Co.'s No. 1 Swann, 1,000 ft. from E and 900 ft. from S. of I. Miley Sur. ....Drlg. 1,468 ft.
Young et al's No. 1 Harrell, 150 ft. from S and E of N half of Sec. 8, O.A.L. Sur. ....Location.

LOVING COUNTY

A. & M. Pet. Corp.'s No. 1 Wheat, 2,310 ft. SW, 990 ft. SE, Sec. 71, Blk. 1, W.&N.W. Sur. ....Cellar.
Eppenauer Drlg. Co.'s No. 1-A Victor, 330 ft. from SW and 338 ft. from SE of NW of N half Sec. 4, Blk. 2, W.&N.W. Sur. ....Rigging up standard tools.
Goldman et al's No. 2 Allen, 330 ft. from NW, 2,310 ft. from SW, Sec. 90, Blk. 1, W.&N.W. Sur. ....Shut down.
Goldman et al's No. 1 Reagan-McElvain, 330 ft. from NE, 2,310 ft. from NW, Sec. 84, Blk. 1, W.&N.W. Sur. ....Shut down.
Lewis & Siegel's No. 1 Johnson, 330 ft. from N and 1,650 ft. from W, Sec. 6, Blk. 56, Twp. 1, T.&P. Sur. ....To deepen after recovering tools at 3,281 ft.
Martin et al's No. 1 Wheat, 990 ft. from SW and SE, Sec. 83, Blk. 1, W.&N.W. Sur. ....S.D. 4,007 ft.
Miller et al's No. 1 Ferguson, 990 ft. from NE of Sec. 44, Blk. 29 ....Spudded and S.D.
Thomas' No. 1 Wheat, 2,310 ft. from NW, 990 ft. from NE, Sec. 83, Blk. 1, W.&N.W. Sur. ....T.D. 4,050 ft.; straightening crooked hole.

PECOS COUNTY

Bennett et al's No. 1 Powell, 330 ft. from SW and SE, Sec. 76, Blk. 10, H.&G.N. Sur. ....Moving in material.
Cardinal Oil Co.'s No. 3-G Tippett, 660 ft. from S and 330 ft. from E of No. 2 Tippett, Sec. 61, Blk. 194, G.C.&S.F. Sur. ....T.D. 303 ft.
Cardinal Oil Co.'s No. 16 E. Tippett, 5,280 ft. from S and 150 ft. from W of E half of W half Sec. 40, Blk. 194, G.C.&S.F. Sur. ....S.D. 550 ft.
Cooper et al's No. 1 Perry, 1,980 ft. N and W, Sec. 15, Blk. C-4, G.C.&S.F. Sur. ....S.D. 802 ft.
Corvette Oil Corp.'s No. 8 H. Monroe, 1,040 ft. from E line and 150 ft. from N line of Sec. 39, G.C.&S.F. Sur., Blk. 194 ....Location.
Massey's No. 1 Iowa Realty Trust, 150 ft. from NE and 1,483 ft. from NW, Sec. 21, Blk. 10, H.&G.N. Sur. ....S.D. 425 ft.
Messinger et al's No. 1 Jones, 1,200 ft. from NW, 1,200 ft. from SW, Sec. 5, Blk. 9, H.&G.N. Sur. ....S.D. 1,000 ft.
Stanolind Oil & Gas Co. et al's No. 2 Tippett, 5,300 ft. from S and 150 ft. from E of W half of W half, Sec. 40 ....T.P. 531 ft.; T.D. 599 ft.; plugged back 542 ft.; 33 bbls. in 16 hrs.
Winfield et al's No. 1 Eaton, 1,170 ft. from NE and 2,490 ft. from SE, Sec. 35, Blk. 3, H.&T.C. Sur. ....S.D. 940 ft.

PRESIDIO COUNTY

Sadler et al's No. 1 Bledsoe, 2,640 ft. from N and W Sec. 15, Blk. 354, G.C.&S.F. Sur. ....S.D. 328 ft.

REAGAN COUNTY

Big Lake Oil Co.'s No. 1-C University ....S.D. 9,562 ft.
Big Lake Oil Co.'s No. 3-C University, 710 ft. from S and 2,410 ft. from E, Sec. 12, Blk. 2 ....Drlg. 7,647 ft.
Big Lake Oil Co.'s No. 9-C University, 2,410 ft. from N and 765 ft. from E, Sec. 12, Blk. 2 ....Drlg. 4,750 ft.
Big Lake Oil Co.'s No. 10-C University, 2,025 ft. from S and 375 ft. from W, Sec. 25, Blk. 9 ....Digging cellar.
Big Lake Oil Co.'s No. 151 University, 1,700 ft. from S and 2,000 ft. from W, Sec. 16, Blk. 2 ....Drlg. by tools 2,800 ft.
Continental Oil Co.'s No. 6-B University, 765 ft. from N and 1,980 ft. from W, Sec. 36, Blk. 9 ....Drlg. 7,612 ft.
Continental Oil Co.'s No. 7-B University, 1,900 ft. from N and 650 ft. from W, Sec. 36, Blk. 9 ....Drlg. 2,745 ft.
Continental Oil Co.'s No. 8-B University, 1,200 ft. from S and 1,775 ft. from W, Sec. 36, Blk. 9 ....Drlg. 2,610 ft.
J. P. Williams et al's No. 1 Scott, 1,650 ft. from N and 330 ft. from W, Sec. 179, Blk. 1, T.&P. Sur. ....Drlg. 470 ft.; elev. 2,587 ft.

REEVES COUNTY

Cordova Union Oil Co. et al's No. 1 Wright, 1,320 ft. from S and W, Sec. 58, Cassell's Sur. ....Drlg. 3,177 ft.
McDorman et al's No. 1 Ray Roberts et al, 2,310 ft. from S and E lines of Sec. 22, Blk. 59, P.S.L. Sur. ....S.D. 2,025 ft.

RUNNELS COUNTY

Dutton et al's No. 1 Dean, 5,475 ft. from NE and 1,045 ft. from NW in J. Heil Sur. No. 519 ....S.O. 3,417-20 ft.; S.D. 3,600 ft.
John Castor's No. 1 Hall, 330 ft. from S and W, Sec. 149, E.T.R.R. Sur. ....Spudded.

SCHLEICHER COUNTY

Eastland Oil Co.'s No. 1 Joe Tisdale, C Sec. 29, Blk. M, G.H.&S.A. Sur. ....Fishing tools 5,410 ft.
Wesner et al's No. 1 Nicks, 2,310 ft. from N and 2,302 ft. from E of Sec. 77, Blk. LL, T.C. Sur. ....Drlg. 6,045 ft.
George Wilson's No. 1 Page, Sec. 40, Blk. L, 1,290 ft. from N, 1,570 ft. from W, G.H.&S.A. Sur. ....S.D. 5,053 ft.

SCURRY COUNTY

G. E. Dickman et al's No. 1 F. C. Davis, 1,000 ft. N and 1,770 ft. W of SE cor. of Sec. 275, Blk. 2, H.&T.C. Sur. ....S.D. 5,100 ft.
W. S. Guthrie's No. 1 Clarkson, 1,320 ft. from S and W, Sec. 243, Blk. 97, H.&T.C. Sur. ....Drlg. 1,975 ft.
Heinsleman et al's No. 1 Hood, 436 ft. from N and 489 ft. from E, Sec. 87, Blk. 3, H.&T.C. Sur. ....T.D. 1,050 ft.; running 8¼-in. csg.
Scurry County Oil Exchange's No. 1 Earnest, 2,310 ft. from N and W, Sec. 68, Blk. 3, H.&G.N. Sur. ....Spudded and S.D.
Seifert & Dibble's No. 1 T. M. Blackburn, 2,310 ft. from N and 2,310 ft. from W line of Sec. 153, Blk. 97, H.&T.C. Sur. ....S.D. 4,992 ft.

STERLING COUNTY

Fullick & Johnson's No. 1 Davis, 990 ft. from S and 660 ft. from E, Sec. 7, Blk. 12, S.P. Sur. ....Rigging up machine.

TAYLOR COUNTY

Urban's No. 1 Blair, 1,500 ft. from S and 150 ft. from W of NE 198 varas Guadalupe County School Lands, Lot 21 ....Show oil and gas 2,315-21 ft.; drlg. 2,330 ft.

TERRELL COUNTY

Big Bend Oil Co.'s No. 1 Bassett, C NW Sec. 155, Blk. D, M-K-T Sur. ....S.D. 2,269 ft.
Briggs & McPhee's No. 1 Kerr, 1,800 ft. E and 790 ft. S of NW cor. Sec. 18, Blk. 5-D, M.K.&T. Sur. ....S.D. 500 ft.
Keck Pecos Trust Co.'s No. 1 Hamilton, C Sec. 6, Georgetown Ry. Sur. ....S.D. 3,150 ft.
Miller Bros.' No. 1 Allison & Burke, C NW Sec. 10, Blk. 176, T.&P. Sur. ....S.D. 120 ft.
Mid-Kansas Oil & Gas Co.'s No. 1 Goode, 2,152 ft. from E and 330 ft. from S, Sec. 26, Blk. 161, G.C.&S.F. Sur. ....S.D. 6,130 ft.
Jones et al's No. 1 Pankenham, C SE NW Sec. 43, Blk. B-2, C.C.S.D.&R.G.N.G. Sur. ....S.D. 2,545 ft.
Sides et al's No. 1 Phelps, 2,157 ft. from N and 2,482 ft. from W, Sec. 5, G. W. Hurley Sur. ....S.D. 3,525 ft.

TOM GREEN COUNTY

Belding & Dutton's No. 1 Norsworthy, 1,640 ft. from S and 587 ft. from E of John McNeese Sur. ....S.D. 760 ft.; S.O. and gas 725 ft.
Hancock et al's No. 1 Reed, 330 ft. N and 1,670 ft. W of SW cor. of C. Schoner Sur. but in Mason & Perry Subd. No. 39 ....Moving in material.
Mintex Oil Co.'s No. 1 Campbell Est., 446 ft. from S and 630 ft. from W of Sec. 180, Dist. No. 11, S.P. Sur. ....S.D. 1,994 ft.
Pratt & Hancock's No. 2 Lewis, 100 ft. N and 330 ft. E of most northerly SW cor. of Joshua S. Grant Sur. No. 2 ....S.D. 200 ft.

UPTON COUNTY

Gulf Prod. Co.'s No. 102 McElroy, 1,320 ft. from S and W, Sec. 139, Blk. F, C.C.S.D.&R.G.N.G. Sur. ....5¾-in. csg. cmtd. 1,205 ft.

VAL VERDE COUNTY

Couch et al's No. 1 J. P. Yoas, 1,300 ft. from the N line and E line of Sec. 31, Blk. 1, I.&G.N. Sur. ....S.D. 400 ft
O. O. Owens' No. 1 Mills, Sec. 128, Blk. 1, I.&G.N. Sur., elev. 2,130 ft. ....S.D. 6,780 ft

WARD COUNTY

Abell Bros.' No. 2 Sloan, 990 ft. from NE and NW, Sec. 24, Blk. 5, H.&T.C. Sur. ....Drlg. 850 ft.

Abell Bros.' No. 1 Hayzlett, 1,650 ft. from NW and 1,320 ft. from SW, Sec. 3, Blk. 5, H.&T.C. Sur. ..... S.D. 2,537 ft.; to plug.
Atlantic Oil Prod. Co.'s No. 1 University, 330 ft. S and E, Sec. 3, Blk. 16 ..... T.D. 2,448 ft.; skidded rig 30 ft. west.
Atlantic Oil Prod. Co.'s No. 1 Blank-Camp, 1,320 ft. from NW and SW Sec. 14, Blk. 34, H.&T.C. Sur. .... Drlg. 2,662 ft.; swabbing; T.P. 2,340 ft.
Atlantic Oil Prod. Co.'s No. 1 Jones, 330 ft. from SW and 1,650 ft. from SE, Sec. 25, Blk. B-29, P.S.L. Sur... S.D. 2,067 ft.; to run csg.
Barnsdall Oil Co.'s No. 5 Henry, 1,650 ft. from NE and 330 ft. from SE, Sec. 28, Blk. B-29, P.S.L. Sur. ..... Drlg. 1,152 ft.
Bentley et al's No. 1 Carson, 1,650 ft. from NE and SE Sec. 26, Blk. 5, H.&T.C. Sur. ..... S.D. 2,240 ft.
Bradford's No. 1 Carson, 1,650 ft. from SE and 990 ft. from NE Sec. 26 ..... Drlg. 1,085 ft.
Bradford's No. 1 Beatty, 1,650 ft. from NW and 330 ft. from SW, Sec. 3, Blk. 34, H.&T.C. Sur. ..... Material on ground.
Bundy et al's No. 1 Bennett, 2,310 ft. from NW and SW Sec. 16, Blk. 34, H.&T.C. Sur. ..... T.D. 2,608 ft.; cleaning out.
Eastland Oil Co. et al's No. 1 Grimes, 445 ft. from NE and 1,320 ft. from SE Sec. 14, Blk. 34, H.&T.C. Sur.... T.D. 2,480 ft.; flowing 17 bbls. per day.
Eastland Oil Co.'s No. 2 Grimes, 495 ft. from NE and 440 ft. from SE, Sec. 14, Blk. 34, H.&T.C. Sur. ..... Location.
Eastland Oil Co.'s No. 3 Weiss, 954 ft. from NW and 284 ft. from NE of Sec. 4, Blk. 34 ..... S.D. 2,385 ft.; flowing 100 bbls. per day.
Eppenauer's No. 1 Purcell, 385 ft. from SW and 1,650 ft. from SE of Sec. 17, Blk. 14, H.&T.C. Sur. ..... T.D. 2,740 ft
Eppenauer Drlg. Co.'s No. 1 University, 330 ft. from N and 440 ft. from E of S half of Blk. 16 ..... Material on ground; machine.
Gerber O. & G. Co.'s No. 1 Stubbs, 330 ft. from S, 990 ft. from W, Sec. 9, Blk. 3, B.&B. Sur. ..... Cellar.
H. V. Greer's No. 1 Carr, 150 ft. from NW and 510 ft. from SW, Sec. 12, Blk. 5, H.&T.C. Sur. ..... S.D. 2,223 ft.
Gulf Prod. Co.'s No. 14 Hutchings, 330 ft. from N and W of Sec. 9, Blk. O ..... T.D. 2,739 ft.; plugged back 2,720 ft.; swabbing and cleaning out.
Gulf Prod. Co.'s No. 15 Hutchings, 1,933 ft. from S and 990 ft. from W, Sec. 5, Blk. F ..... T.D. 2,770 ft.; cleaning out and swabbing.
Gulf Prod. Co.'s No. 26 O'Brien, 2,347 ft. N, 330 ft. E. Sec. 16, Blk. F ..... Set 6⅝-in. csg. 2,429 ft.
Gulf Prod. Co.'s No. 39 O'Brien, 990 ft. N of SW cor., Sec. 6, Blk. F ..... Location.
Kregie et al's No. 1 Kessler, 3,062 ft. from SE, 330 ft. from NE, Sec. 46, Blk. 34, H.&T.C. Sur. ..... S.D. 2,000 ft; plugged back to 1,452 ft; fishing.
Magnolia Pet. Co.'s No. 1 Brillhart, 2,310 ft. from NW and SW, Sec. 13, Blk. 34, H.&T.C. Sur. ..... Drlg. 400 ft. in new hole.
Maxwell's No. 1 Smith, 330 ft. from NW and SW, Sec. 26, Blk. 34, H.&T.C. Sur. ..... T.P. 2,456 ft.; S.D. 2,570 ft.
George McCamey's No. 1 Carey, 2,310 ft. from NW and 330 ft. from NE, Sec. 5, Blk. 5, H.&T.C. Sur. ..... Location.
Penn Oil Co.'s No. 1 Hardage-Wilson, 330 ft. from NE and SE Sec. 11, Blk. 34, H.&T.C. Sur. ..... Fishing 2,465 ft.
Prince Bros.' No. 2 Hall-Roberts, 1,470 ft. from NE and 2,200 ft. from NW, Sec. 14, Blk. 34, H.&T.C. Sur. .... Rigging up.
Rector Oil Co.'s No. 1 Monroe, 660 ft. from NE and SE, Sec. 62, Blk. 33, H.&T.C. Sur. ..... S.D. 4,150 ft.
Rowan & Nichols' No. 1 Street, 990 ft. from SE and 330 ft. from NE, Sec. 17, Blk. 34, H.&T.C. Sur. ..... Drlg. 1,500 ft.
Skelly Oil Co.'s No. 1 Brillhart, 2,310 ft. from NW and NE, Sec. 13, Blk. 34, H.&T.C. Sur. ..... T.D. 2,505 ft.; shut in for storage.
Southern Oil Co.'s No. 1 Sloan, 1,650 ft. from NE and 330 ft. from NW, Sec. 34, Blk. 5, H.&T.C. Sur. ..... Drlg. 1,678 ft.
Stanolind Oil & Gas Co.'s No. 1 Whitlock, 495 ft. NE, 2,200 ft. SE, Sec. 14, Blk. 34, H.&T.C. Sur. ..... T.D. 2,515 ft.; to shoot.
Sturm et al's No. 4 Jones, 2,310 ft. from SW and 990 ft. from SE Sec. 25, Blk. B-29, P.S.L. Sur. ..... To test 2,546 ft.
T. P. Coal & Oil Co.'s No. 7 James, 1,320 ft. from SW and SE, Sec. 5, Blk. 34, H.&T.C. Sur. ..... Drlg. 2,270 ft.
Thompson's No. 1 Johnson, 2,310 ft. from SW and 330 ft. from NW, Sec. 9, Blk. 34, H.&T.C. Sur. ..... T.D. 2,351 ft.; flowing 50 bbls. per day.

WINKLER COUNTY

Colonial Oil Co.'s No. 1 State vacancy, 330 ft. E and 103 ft. N of NW cor. Sec. 2, Blk. 77, P.S.L. Sur. ..... Drlg. 923 ft.
Richardson et al's No. 1-B Scarborough, 990 ft. from S and 1,980 ft. from E, Sec. 18, Blk. 74, P.S.L. Sur. .... Drlg. 2,580 ft.
Richardson et al's No. 2 Scarborough, 1,980 ft. from N and 660 ft. from E. Sec. 1, Blk. 77, P.S.L. Sur. ..... S.D. 2,830 ft.; est. 150 bbls. per day.

Wildcat Operations in Texas Panhandle

Week Ending February 6

CARSON COUNTY

Company, well, farm name, section and block— Remarks:

Gulf Prod. Co.'s No. 6 Cooper, 330 ft. from N and W SW, Sec. 4, Blk. 9, I.&G.N. Sur. ..... S.D. 3,075 ft.; T.P. 3,035 ft.; to test.
Panhandle Rfg. Co.'s No. 1 Kirby, 1,320 ft. N and W, Sec. 183, Blk. 3, I.&G.N. Sur. ..... Drlg. 2,277 ft.
Sinclair Prairie Oil Co.'s No. 1 Cooper, 330 ft. from S and W, Sec. 4, Blk. 9, I.&G.N. Sur. ..... T.D. 3,115 ft; C.O.
Texas Interstate P. L. Co.'s No. 1 Burnett, 1,333 ft. N, 2,675 ft. E of N½ Sec. 97, Blk. 5, I.&G.N. Sur. ..... Drlg. 2,138 ft.
Union Pet. Co.'s No. 3 Cooper, 330 ft. N, 310 ft. E SE, Sec. 5, Blk. 9, I.&G.N. Sur. ..... Cellar.

CHILDRESS COUNTY

Robertson's No. 1 Biddy, center S 26½ acres of N, Laughlin Sur. Blk. T ..... Rig.

COLLINGSWORTH COUNTY

Kates et al's No. 1 Hickman, center NE, Sec. 43, Blk. 10, H.&G.N. Sur. ..... S.D. 2,275 ft.
Kates et al's No. 1 Bell, 200 ft. from N, 2,310 ft. from W. Sec. 21, Blk. 102, H.&G.N. Sur. ..... S.D. 2,702 ft.
Tittle, Cochran et al's No. 1 Boyles, 150 ft. S and E of Sec. 90, Blk. 14, H.&G.N. Sur. ..... Location.

COTTLE COUNTY

Darby Pet. Co. et al's No. 1 Puersil, 330 ft. from N, 1,320 ft. from E, Sec. 46, Blk. B, John H. Stevens Sur. ..... S.D. 4,734 ft.

DEAF SMITH COUNTY

Western Union Oil Co.'s No. 1 Farwell, C NW, Sec. 18-3n-2e ..... S.D. 1,240 ft.

GRAY COUNTY

Back & Barber's No. 1 Back, 660 ft. from S, 330 ft. from W, Sec. 140, Blk. 25, H.&G.N. Sur. ..... S.D. 2,428 ft.
Baldridge et al's No. 1 Melton, 330 ft. from NE E half NE, Sec. 95, Blk. B-2, H.&G.N. Sur. ..... S.D. 3,075 ft.; T.P. 3,013 ft.; 40 bbls.; to make 5-day test.
Baldridge et al's No. 1 Catlin, 330 ft. S and E of E 80 of 158-ac. tract, Sec. 57, Blk. 3, I.&G.N. Sur. ..... Drlg. 2,945 ft.
Baldridge O. Co.'s No. 1-B Melton, 330 ft. from N and E of SW, Sec. 95, Blk. B-3, H.&G.N. Sur. ..... S.D. 1,815 ft.
Bell O. & G. Co.'s No. 2 Tedesco Webb, 330 ft. S and W, Sec. 61, Blk. 25, H.&G.N. Sur. ..... T.D. 2,611 ft.; T.P. 2,535 ft.; to shoot.
Boyes et al's No. 1 Colebank-Morse, 330 ft. NE, Sec. 45, Blk. 25, H.&G.N. Sur. ..... S.D. 2,556 ft.
Gordan Burch's No. 1 Laugham, 990 ft. S, 330 ft. E. Sec. 1, W½ NE, Sec. 1, Blk. B-2, H.&G.N. Sur. ..... Drlg. 2,506 ft.
Cantone Oil Co.'s No. 2 Morse, 330 ft. from N, 330 ft. from E line, Blk. 9-A, Sec. 15, H.&G.N. Sur. ..... Location.
Christy's No. 1 Gethings, 330 ft. from N and E, Sec. 13, Blk. A-9, H.&G.N. Sur. ..... S.D. 1,760 ft.
Sam Danner's No. 1 Cobb, 330 ft. S and W NE, Sec. 165, Blk. 3, I.&G.N. Sur. ..... Drlg. 883 ft.
Dolomite Prod. Co.'s No. 1 Sallor, 330 ft. N and E, Sec. 111, Blk. 3, I.&G.N. Sur. ..... Drlg. 2,012 ft.
Gerber O. & G. Co.'s No. 1 Stubbs, 330 ft. from S, 990 ft. from W, Sec. 9, Blk. 3, B.&B. Sur. ..... Rig.
Gray County Prod. Co.'s No. 1 Huselby, 330 ft. from S and W, E½ NW, Sec. 55, Blk. 25, H.&G.N. Sur. ..... Cmtd. 6⅝-in. csg. 3,357 ft.
Gulf Oil Corp.'s No. 2 Catlin, 330 ft. S and W NW cor. SW, Sec. 40, but in Sec. 57, Blk. 3, I.&G.N. Sur. ..... T.P. 3,043 ft.; T.D. 3,156 ft.; pumped 340 bbls. first 24 hrs.
Mazda-Shell Pet. Corp.'s No. 3 Combs-Worley, 330 ft. from N and W NE. Sec. 35, Blk. 3, I.&G.N. Sur. ..... S.D. to test; T.D. 3,058 ft.
Mazda-Shell's No. 4 Coombs-Worley, 990 ft. from N line 330 ft. from E line, Sec. 35, Blk. 3, I.&G.N. Sur... Rig.
Mid-Kansas O. & G. Co.'s No. 1 Gethings, 330 ft. S, 1,650 ft. W S½ S½, Sec. 13, Blk. A-19, H.&G.N. Sur... T.D. 2,788 ft; shot and now C.O. to test.
Ochiltree et al's No. 1 Hughey, 360 ft. S, 330 ft. E E half SE, Sec. 129, Blk. 3, I.&G.N. Sur. ..... Drlg. 3,188 ft; S.O. 3,168-72 ft.
Parton & Holt's No. 2 Morse, 330 ft. from W, 350 ft. from N, W½ SW, Sec. 5, Blk. 26, H.&G.N. Sur. ..... S.D. 2,635 ft; to shoot.
Parton Holt's No. 3 Morse, 660 ft. from N and E of E half SW. Sec. 5. Blk. 26, H.&G.N. Sur. ..... Drlg. 2,598 ft.
Peterson & Holt's No. 1 Gething, 330 ft. from S and W of N¼ SE Sec. 13, Blk. 9-A, H.&G.N. Sur. ..... Cellar.
Phillips Pet. Co.'s No. 1 Davidson, 330 ft. N and W, Sec. 86, Blk. B-3, H.&G.N. Sur. ..... Drlg. 2,640 ft.
Pulse-Shell's No. 1 Brown, 290 ft. from N, 250 ft. from E of NW, Sec. 128, Blk. 3, I.&G.N. Sur. ..... T.D. 3,263 ft.; T.P. 3,215 ft.; pumped 234 bbls. first 24 hrs.
Quicksand Oil Co.'s No. 2 Chapman, 165 ft. N, 775 ft. from E of W 60 ac. of N¼ NW, Sec. 69, Blk. 25, H.&G.N. Sur. ..... Fishing 2,720 ft.
Saunders et al's No. 2 Sullivan, 322 ft. from W, 231 ft. from NE, 160 ft. S, 264 ac. of N½, Sec. 136, Blk. 3, I.&G.N. Sur. ..... Will plug back to 3,275 ft. and shoot.
Sinclair Prairie Oil Co.'s No. 1-E Combs-Worley, 330 ft. from S and E, Sec. 34, Blk. 3, I.&G.N. Sur. ..... Location.
Skelly Oil Co.'s No. 1 C. Thut, 330 ft. from S line, 330 ft. from W line, SW Sec. 1, H.&G.N. Sur., Blk. 1.... Rigging up rotary.
Skelly Oil Co.'s No. 1 Gething, 990 ft. from S and W of Sec. 48, Blk. 9-A, H.&G.N. Sur. ..... Drlg. 1,512 ft.
Skelly Oil Co.'s No. 3-A South Jackson, 330 ft. N, 1,050 ft. E, Sec. 88, Blk. B-2, H.&G.N. Sur. ..... Drlg. 2,366 ft.
Sun Oil Co.'s No. 1-B Combs-Worley, 330 ft. S and E of SW Sec. 34, Blk. 3, I.&G.N. Sur. ..... Bldg. rig.
Tedesco-Bell O. & G. Co.'s No. 4 Morse, 990 ft. N and W SE, Sec. 1, Blk. 24, H.&G.N. Sur. ..... Rig.
Texoma Nat. Gas Co.'s No. 1-G Abersold, 2,632 ft. N, 2,640 ft. W, Sec. 130, Blk. 3, I.&G.N. Sur. ..... Drlg. 2,690 ft; gas pay 2,495 ft.; 28,000,000 ft. gas.
The Texas Co.'s No. 1 Gethings, 330 ft. from S line, 330 ft. from W line, S½ Sec. 47, Blk. 9-A, H.&G.N. Sur... Drlg. 2,857 ft; T.P. 2,736 ft.
Paul Tharp's No. 1 Short, 330 ft. from N and W of Sec. 2, Blk. 1, H.&G.N. Sur. ..... Drlg. 2,422 ft.
Sam Travis' No. 1 Back, 330 ft. S and E E half NE, Sec. 44, Blk. 25, H.&G.N. Sur. ..... Rig.
Trippiehorn Bros.' No. 1 Lovett, 330 ft. from N and W, Sec. 57, Blk. B-3, H.&G.N. Sur. ..... T.D. 3,154 ft; pumped 99 bbls. first 24 hrs.; 89 bbls. second 24 hrs.
Weltzel Oil Co.'s No. 2 Morse, 330 ft. from S and E of N half NW, Sec. 67, Blk. 25, A.&G.N. Sur. ..... T.D. 2,675 ft.; plugged back to 2,285 ft.; to set csg.

HEMPHILL COUNTY

Hoover's No. 1 Hoover, 350 ft. from N, 1,200 ft. from E, G. S. Hood Sur. ..... S.D. 5,230 ft.

HUTCHINSON COUNTY

Alexander's No. 1 Cockrell, 330 ft. N and E of E 80 of S 160, Sec. 3, Blk. M-2, T.C. Sur. ..... Drlg. 2,343 ft.
Baso's No. 1 Moore, 330 ft. from S, 330 ft. from E, in 80 ac. in NW, Sec. 21, Blk. M-21. T.C.R.R. Sur. .. T.D. 3,080 ft.; est. 5 or 10 bbls.
Danciger O. & R. Co.'s No. 1 Johnson, 330 ft. N and W, SE, Sec. 34, Blk. Y, A.&B. Sur. ..... Spudded and S.D.
Deal O. & G. Co.'s No. 2 Sanford, 330 ft. N and E of N 80 ac., S 160 ac., Sec. 81, Blk. 46, H.&T.C. Sur.... S.D. 450 ft.
Huber Pet. Co.'s No. 1 Moyer-Johnson, 990 ft. from N, 330 ft. from E half SW, Sec. 34, Blk. Y, A.&B. Sur. ..... S.D. 2,918 ft.
Huber Pet. Co.'s No. 1 Works, 1,342 ft. from S and 1,313 ft. from E, Sec. 7, Blk. Y-2, T.T. Sur. ..... Drlg. 2,006 ft.
Liner Drlg. Co.'s No. 1-D Johnson, 330 ft. from N and E, Sec. 6, Blk. 1, B.&B. Sur. ..... T.D. 3,146 ft.
Joe Murphy's No. 1 Watkins, 440 ft. from N and W of N half, Sec. 13, Blk. M-21 ..... T.P. 2,923-60 ft; 1,400 ft. oil in hole; T.D. 2,964 ft.
Pharis Oil Co.'s No. 5 Smith, 660 ft. from N and W, SW, Sec. 14, Blk. Y, M.&C. Sur. ..... Shut down.
Stanolind O. & G. Co.'s No. 4-A Ware, 330 ft. S and W NE, Sec. 124, Blk. 4, I.&G.N. Sur. ..... T.P. 3,068-3,104 ft; T.D. 3,194 ft.; shot with 200 qts. 3,065-3,145 ft.; no test.
H. Steckol's No. 1 J. A. Whittenburg (Amerada), 430 ft. from S line, 990 ft. from W line, Sec. 37, T.C.R. R. Sur. ..... Rigging up standard tools.
Texlivania Oil Co.'s No. 1 Haile, 330 ft. S, 280 ft. W, Sec. 16, Blk. 1, E.L.R.R. Sur. ..... Ran 8¼-in. csg. 2,105 ft.

LIPSCOMB COUNTY

Okla. Public Service Co.'s No. 1 C. W. Jones, NE SW, Sec. 100, H.&T.C. Sur. ..... T.D. 5,003 ft.

MOORE COUNTY

Canadian River Gas Co.'s No. 2-A Perkins, 3,250 ft. S of most northerly NE cor, 200 ft. W of E line, Sec. 54, Blk. 47, H.&T.C. Sur. ..... Fishing 800 ft.
Dogie Oil Co.'s No. 1 Greenwald, 330 ft. from N and W, Sec. 277, Blk. 44, H.&T.C. Sur. ..... Drlg. 2,488 ft.
Shamrock Oil & Gas Co.'s No. 1 Burnett, 660 ft. from S, 330 ft. from W, Sec. 359, Blk. 44, H.&T.C. Sur. ... S.D. 3,796 ft; running 5 3/16-in. csg.

MOTLEY COUNTY

Matador Oil Corp.'s No. 1 Owens, C NE, Sec. 10, Blk. G, B.&B. Sur. ..... S.D. 530 ft.

OLDHAM COUNTY

Chambers et al's No. 1 Herring, CNL, Sec. 20, Blk. 5, G.C.&S.F. Sur. ..... Fishing 4,000 ft.

ROBERTS COUNTY

Chicken Creek Oil Co.'s No. 1 Ledrick, 330 ft. N and W, Sec. 55, Blk. C, G.&M. Sur. ..... S.D. 4,970 ft.

WHEELER COUNTY

Delaney et al's No. 1 Sitter, 330 ft. from S and W of E half NE, Sec. 33, Blk. 24 ..... T.D. 2,562 ft; fishing bit; 1 bbl. oil per hr.
Devore & Robinson's No. 1 Sitter, 2,310 ft. from S and E, E½, Sec. 33, Blk. 24, H.&G.N. Sur. ..... T.D. 2,760 ft.; S.D. for pipe line connection.
Helena O. & G. Co. et al's No. 1 Below, C NE SW, Sec. 50 ..... Rigging up.
Osborne et al's No. 2 Sloss & Admire, 330 ft. from N line and 1,530 ft. from E line of NE Sec. 47, H.&T. C. Sur., Blk. 13 ..... S.D. 100 ft. for wtr.
B. M. Rhodes' No. 1 Noel, 330 ft. S and E NE, Sec. 54, Blk. 24, H.&G.N. Sur. ..... Bldg. rig.
Rogers & Harner's No. 1 J. O. Clark, 990 ft. S and W of Sec. 6, Blk. 24, H.&G.N. Sur. ..... Moving in material.

Noble and Garfield Counties to Be Given More Tests as Result of Wentz Pool Completions

By W. A. SPINNEY
Staff Correspondent, Oklahoma Fields

The feature of the week's oil activities in Oklahoma was the continued development in field work in the Wentz Pool, Noble County, notwithstanding the relatively small wells that have been found in the field at about a mile deep. The new locations are being drilled on 10-acre tracts, while the previous wells drilled were in the center of 40-acre tracts. Wildcat wells are starting and resuming operations in Garfield and Alfalfa Counties. Wildcatting is active in southern Oklahoma. Potential tests are under way in the West Holdenville Pool, in Hughes County. Oklahoma City operators are interested in the method in which the potential tests will be taken in that field some time during this month.

Activity continues in the Wentz Pool, in Noble County. Sinclair Prairie Oil Co.'s No. 1 Jerome, SW cor. Section 15-20-2w, is a new location announced during the week. It will be drilled in the center of 10 acres, all of the previous locations in the field having been drilled in the center of 40 acres. The test is forced because of the nearness to expiration of the short term lease, and is 1½ miles east of discovery well. The staking of the well on a 10-acre tract was the result of the Champlin Refining Co. announcing it would drill 10-acre locations on its lease in the NE of Section 21-20-2w, which lease is a diagonal offset to the Jerome farm lease of the Sinclair Prairie Oil Co.

The Lucien Consolidated Community's No. 1 Jerome, C SW SW Section 8-20-2w, was plugging back with cement in an attempt to shut off bottom hole water which rose 3,500 feet in the hole, and has been off production during the week.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Kolb, C NE NW Section 33-20-2w, in the south end of the pool, was drilled to a total depth of 5,118 feet. It was shot with 10 quarts Friday, February 3. It had been making around 600 bbls. of oil a day before the shot and was making about the same after it was shot. The owners plan to drill the well about 5 feet deeper before completing it.

The State Supreme Court has been asked to clarify the proration orders of the Corporation Commission. The court was asked last Saturday, February 4, to issue an order which would make plain the powers of the Corporation Commission, determine the legality of its orders and decide certain points involved in the appeal of the H. F. Wilcox Oil & Gas Co. case. No action was taken by the court Saturday, and it is understood that the members of the court will consider all the issues before making any decision.

Continental Oil Co. and others' No. 1 Thompson, NW cor. SW SW Section 7-24-4w, Garfield County wildcat, was expected to spud this week. The drilling of the wildcat has resulted in increased activity in leasing and royalty in the north central part of the State.

Champlin Refining Co.'s No. 2 Gibson, NW cor. SE SE Section 25-23-4w, Garfield County, found a showing of gas at 5,091-98 feet, and was cleaning out.

Old Test Revived

Tex-O-Kan Development Co.'s No. 1 Acre, SW cor. NE Section 14-24-11w, Alfalfa County wildcat, was rigging up standard tools and preparing to resume operations at a total depth of 5,502 feet, the old total depth.

In the Tatums Field

In the Tatums Field in Carter County, Frank Gouin and K. D. Oil Co.'s No. 2 Burton, NW cor. SW SW, Section 30-1-2w, in the southeast extension area of the Tatums Pool, was completed for 115 bbls. of oil from a sand series at 2,416-2,521 feet.

Three other operations in the field were testing. Magnolia Petroleum Co.'s No. 2 Hooks, NW cor. SW SW, Section 13-1s-3w, was testing a showing of oil from sand series at 2,350-2,681 feet.

The Amos Drilling Co.'s No. 2 Short, SE cor. SW SW, Section 18-1s-2w, was preparing to test a gas sand at 1,193 feet after drilling to a total depth of 2,034 feet.

The Carter Oil Co.'s No. 2 Spraggins, NW cor. SW, Section 19-1s-2w, on the east side of the field, found the top of the sand at 1,690 feet and was drilling into the sand.

The Samedan Oil Co.'s No. 1 Hopson, SE cor. NE, Section 25-1s-3w, was drilling at 200 feet. G. L. Pace's No. 2 Mitchell, SW cor. NW NW, Section 30-1s-2w, cemented surface pipe.

Stephens County Wildcats

Wildcat activity was the principal work in Stephens County during the week. L. A. Linson's No. 1 Doss, NW cor. SW NW, Section 4-2s-8w, found a showing of oil in broken sand at 1,663-96 feet. The owners are planning to make a swabbing test of the showing. It is located south of production in the Empire Field.

Dunmar Oil Co.'s No. 2 Donham, SW cor. NE NE, Section 11-2s-8w, in the field southwest from Duncan, was drilling at 1,375 feet.

E. D. Gillette and others' No. 1 Cooley, NW cor. SE NW, Section 17-2s-8w, a wildcat south of the Empire Field about 3 miles, was shut down at 2,560 feet for water.

McHenry and others' No. 1 Williams, NW cor. SE, Section 19-2-8w, a wildcat northwest of Duncan, was spudding.

McNeil and others' No. 1 Newsome, SE cor. NE, Section 14-2-5w, a wildcat south of the Carter-Knox Field, was drilling at 900 feet.

H. C. McLaughlin and others' No. 1 Gann, NE cor. SE NW, Section 31-2-4w, a wildcat, was drilling around 600 feet.

G. L. Pace's No. 1 Baker, NE cor. NW, Section 35-2s-6w, a wildcat southeast from the Palacine Field, was a rig with the tools moving in.

Potentials in Oklahoma City

The methods of taking potentials in the Oklahoma City Field and of conserving natural gas are to be discussed before the Corporation Commission at the meeting to be held February 10. At the hearing last week it was pointed out that the last order of the commission provided for the taking of potentials starting February 1 under the supervision of the chief conservation officer. However, this official has no funds with which to handle this task.

The Corporation Commission finds the present established potentials of all wells and leases in the various producing areas in the State, except in the Oklahoma City Field and in the West Holdenville Field (Booch sand wells), should be extended until further notice from February 1. The wells in the Booch sand in the West Holdenville area started taking potential gauges February 2. All wells will be required to take a four-hour test in accordance with the rules and regulations heretofore established for the taking of potentials in Class "C" pools. This potential test will be under the direction of Ray M. Collins, umpire, and W. J. Armstrong, chief conservation officer of the Corporation Commission. During the potential test the gas volume of each well will be measured and gauged so as to determine the gas-oil ratio of each well in the field.

The allowable production allocated to the prorated pools in the State, outside of Oklahoma City, was ordered by the Corporation Commission as follows:

	Market demand	Full prod.
Class "B" pools—		
Allen	7,672	17,974
West Asher	3,171	7,866
Bowlegs	10,680	25,147
Carr City	8,295	20,179
Old Earlsboro	10,805	23,600
Earlsboro Townsite	1,265	2,876
East Earlsboro	7,316	18,068
South Earlsboro	1,803	4,552
Konawa	3,031	8,048
Little River	15,897	38,750
East Little River	1,423	3,104
Maud	940	1,558
Mission	5,975	14,667
Sasakwa	1,337	2,274
Searight	2,621	5,725
Seminole	9,844	23,256
East Seminole	888	2,076
West Seminole	8,856	21,871
St. Louis	16,661	36,129
Strippers	4,456	4,456
Total	122,936	282,176
Class "C" pools—		
Chandler	3,135	5,601
Fish	2,497	34,740
Holdenville (Booch sand)	2,451	17,370
Orlando	500	900
West Perry	800	2,425
West Konawa	1,060	2,730
Tatums	3,480	57,858
Wewoka Townsite	2,086	4,216
Total	16,009	125,840
Wildcat pools—		
East Earlsboro (Calvin sd.)	425	9,847
Bristow	568	6,004
Section 6-6-5	56	166
Lucien	58	3,565
Marshall	163	5,398
Total	1,270	23,680
Grand total	140,215	431,696

Commission Has Much to Consider

Operators in the Oklahoma City Field are principally interested in the loss of gas and reservoir energy in the taking of potential tests, and it is also the concern of the commission. Some objection has been made to the four-hour open flow tests, such as have been made in the past. Oklahoma City operators are also concerned with the order to equip their wells to conserve natural gas as provided in the recent order of the commission. Engineers have been in conference for a week attempting to work out ways and means for handling the gas problem. Their recommendations will be made at the February 10 hearing.

Other matters scheduled to be brought before the commission at the hearing of February 10 include the earliest possible date for the taking of new potentials; the manner and method of taking the potentials to displace the open flow method heretofore in use on wells in the Oklahoma City Field; whether or not the potentials should be by open flow and, if so, for how long; whether the potential should be on each and every well in the Oklahoma City Field and, if not, what exceptions should be made; whether the potentials should be after a well, or wells, shall have been on regular production, under the allowable percentage for a given period of time prior to the taking of the potential, or whether the well, or wells, should be permitted to make preparations before taking the potential. Whether the potential of a well should require surrounding wells to be closed or open while potential is being taken.

In addition to these questions, the February 10 hearing will consider the establishment of an oil-gas ratio in the future operation of oil wells in the Oklahoma City Field and the proper ratio to be established.

The manner and method of future potentials in the Oklahoma City Field, including the taking of bottom hole pressure tests and the question of the frequency of such bottom hole pressure tests will be decided; also the proper equipment of oil wells for operation so as to prevent the wastage of natural gas; the matter of water allowables, including the advisability of continuing or modifying the present orders and regulaions, and any additional rules and regulations for the prevention of waste through water intrusion.

Phillips Petroleum Co.'s No. 1 Day in Section 10-11-3w, which is located inside the city limits of Oklahoma City, at Idaho and Pottawatomie Avenues, which was blowing wild early in the week, was brought under control and shut in. The well is located in the closely drilled part of the field. It was brought under control by the use of sand bags and cement which permitted the closing of the lower gate valve on the christmas tree.

Interesting Test

One of the interesting tests in the Greater Seminole area is being drilled near the townsite of Sasakwa in the southeastern part of Seminole County. The well may open another producing area in that territory. It is the Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Palmer, NW cor. Section 36-6-7. After coring a saturated sand at 2,608-31 feet it was drilling deeper at 2,719 feet. The nearest production to the well is the shallow production in the Allen Pool 2½ miles to the southeast.

The Winona Oil Co. and others' No. 1 Harjo, C SE NW Section 29-7-8, an east extension to the Fish Pool, in Seminole County, found oil in the Simpson sand and is the first well in the pool to produce from that horizon, as all other wells are producing from the Wapanucka lime. These wells are expected to be drilled to the Simpson sand in the near future, or when they decline to a sufficiently low production. The Wapanucka lime is found in this pool at approximately 3,100 feet while the Simpson sand was found in the discovery well at 4,154-56 feet, where it is estimated it will make 350 bbls. daily, after a shot.

Magnolia Petroleum Co.'s No. 1 Brister, SW cor. NE Section 28-7-4, in the south extension area of the St. Louis Pool, in Pottawatomie County, was bottomed in dolomite at 4,196 feet, where it swabbed 315 bbls. of oil and 250 bbls. of water.

Oklahoma City New Wells

Harrell-Davis Oil Co.'s No. 1 Rodeney, E half NW NW SE Section 22-11-3w, Oklahoma City Field, flowed 1,081 bbls. of oil in two hours with an estimated 20,000,000 feet of gas a day from the Wilcox sand at 6,468-6,586 feet.

Phillips Petroleum Co.'s No. 1 Wallace, NW cor. SE SE Section 22-11-3w, flowed 877 bbls. of oil in one hour through a 3-inch choke, from the Wilcox sand at 6,433-6,538 feet. The gas was estimated at 80,000,000 feet a day. The same company's No. 1 Woolsey, SE cor. SW NE Section 22-11-3w, landed

the 7-inch casing at 6,472 feet and drilled to a total depth of 6,488 feet, where it will be completed.

Oklahoma Potentials

The potential production of Oklahoma oil fields as of February 1, was 5,205,500 bbls., according to Ray M. Collins, umpire. The report covers all the fields in the State which is as follows:

GREATER SEMINOLE POTENTIAL

Class "B"—	Bbls.
Allen	18,264
Asher-Wanette	8,023
Bowlegs	25,263
Carr City	20,297
Earlsboro (Proper)	23,796
Earlsboro (East) Wilcox sand	16,511
Earlsboro (South)	4,562
Earlsboro (East extension)	1,041
Earlsboro Townsite	2,297
Konawa	8,209
Little River	39,120
Little River (East)	3,103
Maud	2,231
Mission	14,747
Sasakwa	2,432
Searight	6,027
Seminole	23,464
Seminole (East)	2,111
Seminole (West)	21,871
St. Louis	37,429
Total	280,798
Class "C"—	
Fish	34,778
West Konawa	2,730
Wewoka Townsite	3,528
Total	41,036
East Earlsboro (Calvin)	9,847
Total Greater Seminole	331,681
Chandler	5,601
Orlando	900
West Perry	2,425
Tatums	57,866
Wildcats	15,133
Class "A" (outside Seminole)	50,691
Strippers (outside Seminole)	150,298
Oklahoma City	4,590,914
Total Oklahoma	5,205,509

Carter County

Carter Oil Co.'s No. 3 Spragins, C SW NW SW Section 19-1-2w, is a location.

Comanche County

Roos and others' No. 1 Munson, NE cor. SE NW Section 30-2-9w, is a location.

Creek County

Smith and others' No. 2 Tucker, NE cor. SW SW Section 14-17-8, is a location. Sinclair Prairie Oil Co.'s No. 1 Tibe, SW cor. SE NW Section 29-14-7, is a rig. Swift and others' No. 1 Fixico, NW cor. SE Section 1-18-8, was drilling at 450 feet. Big Four Petroleum Co.'s No. 1 McIntosh, SW cor. SE Section 34-19-8, is a location. Johnson Oil & Refining Co.'s No. 3 Boyd, NE cor. SW Section 29-19-8, made 35 bbls. from 2,104-50 feet. Schoenfeldt and others' No. 1 Potts, NW cor. SE Section 3-18-8, was completed for 25 bbls. after a 140-quart shot from 2,514-45 feet. Johnson Oil & Refining Co.'s No. 1 Taylor, NE cor. NW NE Section 8-18-9, was completed for 1,500,000 feet of gas from 2,490-2,505 feet. Kirchner and others' No. 6 Johnson, CEL SW SE Section 14-17-8, was completed for 30 bbls. from 2,736-39 feet. Spears Drilling Co.'s No. 2 Rhodes, NW cor. SE Section 11-17-12, was completed for 2,000,000 feet of gas a day from 1,725-48 feet.

Hughes County

Manahan and others' No. 1 Harjo, NW cor. SE NW Section 29-7-8, is a location. Phillips Petroleum Co.'s No. 1 Jacobs, NE cor. Section 16-7-8, was completed for 362 bbls. of oil in 16 hours from 2,906-24 feet. Oliphant's No. 2 Narcomie, SW cor. NW NW Section 14-7-8, made 25 bbls. from 1,210-38 feet. Liggett and others' No. 1 Polk, C E half NW NE Section 10-9-9, was abandoned at 1,700 feet.

Jefferson County

Bridwell Oil Co.'s No. 2 Wohlgamuth, SW cor. SE NE NW Section 30-6s-5w, was drilling at 600 feet. Bridwell and others' No. 1 Barrett, SW cor. Section 19-6s-5w, was abandoned at 2,074 feet.

Oklahoma County

Clinkscales-Brown's No. 1 Armour, NW cor SW NW Section 2-11-3w, is a rig. Same operators' No. 1 Harris, SW cor. NE NW Section 2-11-3w, is a rig. Harrill-Davis' No. 1 Stanley, C SW SE Section 22-11-3w, is a rig. American Oil & Refining Co.'s No. 1 Whitfield, SE cor. NE SE Section 34-12-3w, made 6,071 bbls. in four hours from 6,268-6,412 feet.

Wildcat Operations in Oklahoma

Northern Oklahoma

ATOKA COUNTY

Company, farm and location—	Remarks:
Independent Drlg. Co.'s No. 2 D. James (twin), C NE NE Sec. 28-2-15	Drlg. 400 ft.
Barton's No. 4 Miller, SE NW SE SW Sec. 26-1-14	S.D. 505 ft.
Hicks' No. 2 Morris, SE NE NW SE Sec. 5-1-15	Drlg. sand 175-262 ft; 2 bbls.; completed.
George's No. 1 Reddin, SW NE SW Sec. 19-1-15	S.D. 640 ft.

BECKHAM COUNTY

Pattel Royalty's No. 1 Goose Tree, SW SE SW SE Sec. 32-10-23w	Fishing 1,960 ft.
Mid-Texas Co.'s No. 1 Sidell, NE cor. SW SW Sec. 17-22-22w	S.D. 2,550 ft.
White et al's No. 1 Green, SW cor. Sec. 34-10-24w	S.D. 3,575 ft.

BLAINE COUNTY

Watonga Petroleum Co.'s No. 1 Masters, SW NW NW, Sec. 27-16-11w	S.D. 1,205 ft.

CADDO COUNTY

Denver P. & R. Co.'s No. 1 Nos, NW SW SW Sec. 34-10-10w	Drlg. 4,000 ft.
Abernathy & Brown's No. 2 Houston, Sec. 24-6-12w	S.D. 1,115 ft.

COAL COUNTY

Dodd & Burton's No. 1 Grigsby, NW SE NE Sec. 35-1-8	S.D. 1,100 ft.
Funk & Russell's No. 1 Miller, SE NE Sec. 10-2-8	S.D. 2,750 ft.

COMANCHE COUNTY

G. W. Stogner's No. 1 Doebel, C SW SW Sec. 3-3-9w	S.D. 1,450 ft.

CREEK COUNTY

Sinclair Prairie Oil Co.'s No. 1 Tibe, SW SE NW Sec. 29-14-7	Rig.
O. O. Owen's No. 1 fee, NW cor. Sec. 23-15-7	T.D. 3,145 ft.

CUSTER COUNTY

Miley Pet. Co.'s No. 1 Caldwell, NE Sec. 12-14-14w	Location.

ELLIS COUNTY

Algers Pet. Co.'s No. 1 Roper, C SE NW Sec. 21-20-24w	S.D. 50 ft.

GRADY COUNTY

English Drlg. Co.'s No. 1 Heenan-Coe, NE SE NE Sec. 32-3-7w	S.O. 2,255-87 ft; S.D. 3,504 ft.

GARFIELD COUNTY

Continental Oil Co.'s No. 1 Thompson, NW SW SW Sec. 7-24-4w	Rig.
E. L. Love et al's No. 1 White, SE cor. NW Sec. 9-24-6w	S.D. 5,850 ft.

GREER COUNTY

French's No. 1 Murphy, SW NW Sec. 23-7-21w	S.D. 1,645 ft.

HASKELL COUNTY

Ault et al's No. 1 Hall, NW SW SW Sec. 14-9-19	S.D. 2,000 ft.
Ault et al's No. 1 Hall, SE NW Sec. 25-19-9	S.D. 200 ft.

HUGHES COUNTY

Nash-Redwine's No. 1 Uri, C NE Sec. 10-5-11	Drlg. 1,450 ft.

KAY COUNTY

Lewis et al's No. 1 Harris, SE NW Sec. 14-25-1	Location.
Mummert Drlg. Co. et al's No. 1 Cormick, C NW SE Sec. 9-27-2	S.D. 3,693 ft.

KIOWA COUNTY

Emenhiser et al's No. 1 Pace, SW cor. Sec. 3-4-17w	Location.
McWhirter et al's No. 1 Vanderneck, NE NW Sec. 3-7-19w (O.W.D.D.)	T.D. 1,902 ft.; C.O.
McWhirter Bros.' No. 1 Kline, SE NW Sec. 5-6-16w	S.D. 830 ft.
Christian's No. 1 Jones, NE SE Sec. 8-7-18w	S.D. 1,610 ft.

NOBLE COUNTY

Stanolind O. & G. Co. et al's No. 1 Kalb, C NE NW, Sec. 33-20-2w	T.D. 5,118 ft; flowed 650 bbls.; to shoot.
Rollins et al's No. 1 Frank, SE SW Sec. 6-20-2w	Rig.

OKLAHOMA COUNTY

Citizens Oil Co.'s No. 1 Sage Barber, NE cor. Sec. 21-11-3w	S.D. 1,200 ft.
L. C. Hivick's No. 1 Sunset Addition, NW SW NW Sec. 17-11-3w	S.D. 5,515 ft.

PAWNEE COUNTY

G. N. Mainess and Westfield Drlg. Co.'s No. 1 Schildberg, NW SW NW Sec. 27-22-8	Drlg. 1,000 ft.
Deep Rock's No. 1 Crow, NE SE Sec. 25-21-5	Drlg. 2,200 ft.
Rookstool's No. 1 Wylie, NW NE SW Sec. 6-20-5	S.D. 1,930 ft.

PITTSBURG COUNTY

Moffett & Hall's No. 1 Jones, NW cor. Sec. 14-8-14	S.D. 1,675 ft.

PONTOTOC COUNTY

Gilbert's No. 1 Starritt, NW SE Sec. 28-4-6	Rig.
Choctaw O. & G. Co.'s No. 1 Thompson, SW NE SW Sec. 1-1-7	Machine.
Delaney's No. 1 Harden, NE SW Sec. 30-2-7	Drlg. 975 ft.
Blackwell Oil & Gas Co.'s No. 1 Abbott, NW SW NE Sec. 14-4-6	Drlg. sand 1,542-90 ft.
Williams' No. 1 Krath, NE SE Sec. 33-3-4	S.D. 1,545 ft.
Edna Marie's No. 1 McWhirt, NE SE Sec. 11-2-6	S.D. 570 ft.

POTTAWATOMIE COUNTY

Payne Drlg. Co.'s No. 1 Lovelace, NW SW NW Sec. 27-6-4	Rig.

ROGER MILLS COUNTY

Ute Oil Co.'s No. 1 Williams, C SW Sec. 23-12-24w	S.D. 5,150 ft.
L. C. Hivick's No. 1 Davis, C NW NE Sec. 4-11-26w	S.D. 3,420 ft.

SEMINOLE COUNTY

Carter Oil Co.'s No. 1 Keokuk, C N half NW NE Sec. 2-10-6	Rig.
Donnelly et al's No. 1 Shepard, SE NE Sec. 4-8-8	Sand 1,395-1,405 ft.; water; fishing 1,640 ft.

WASHITA COUNTY

Miley Pet. Co.'s No. 1 Montgomery, SW NW SE NW Sec. 23-9-17w	S.D. 1,475 ft.
Miley Pet. Co.'s No. 1 Wolfe, NE SW Sec. 23-9-17w	Rig.
Cooper & Terhune's No. 1 Blocker, NW cor. Sec. 29-8-19w	Show oil 2,469-87 ft.; S.D. 2,767 ft.
Burns & Prince's No. 1 Deck, SW cor. Sec. 21-8-18	S.D. 2,160 ft.

Southern Oklahoma

ATOKA COUNTY

L. E. Stewart et al's No. 1 Stewart, SE SE Sec. 2-4s-10	Drlg. 1,125 ft.
Brookshire's No. 1 R. W. Rowland, NW NE SE Sec. 18-3s-10	S.D. 3,425 ft.

JEFFERSON COUNTY

G. W. Haines' No. 1 Woolsey, SE SW NE Sec. 4-3s-6w (O.W.D.D.)	Abd. 2,261 ft.
J. D. Wakefield et al's No. 1 Kelly, NW SE Sec. 1-5s-8w	Spudded and S.D.

MARSHALL COUNTY

Lee Cross' No. 1 Hamlin, SE SW SW Sec. 26-6S-5	Drlg. 890 ft.
Thomas' No. 1 Setliff, SW SE SE SW Sec. 36-5s-6	S.D. 780 ft.

McCURTAIN COUNTY

Stampfs' No. 1 Robert Harris, SW NW SW Sec. 14-9s-25	S.D. 2,778 ft.

PUSHMATAHA COUNTY

Whitehead et al's No. 1 Messer, SE SW SW Sec. 35-3s-18	S.D. 2,096 ft.

STEPHENS COUNTY

Bridwell Oil Co. et al's No. 1 Weldon, NE SW SW NE Sec. 12-3s-8w	Drlg. 800 ft.
Calif. Prod. & Oper. Co.'s No. 1 Suton, NE SE SW Sec. 12-3s-6w	Drlg. 450 ft.
Gillette Bros.' No. 1 Cooley, NW SE NW Sec. 17-3s-8w	Drlg. 2,300 ft.
George's No. 1 Ryan, NW SW NE Sec. 31-3s-15	S.D. 510 ft.

TILLMAN COUNTY

Emenheser et al's No. 1 Pace, C SW Sec. 3-4S-17w	Location.
Gypsy Oil Co.'s No. 1 Pitcher, NW Sec. 26-4s-15w	Drlg. 350 ft.

Lincoln County

Pure Oil Co.'s No. 2 Ungenesby, SE cor. Section 12-15-6, was completed for 393 bbls. from 3,633-88 feet.

Noble County

Sinclair Prairie Oil Co.'s No. 1, SW cor. Section 15-20-2w, is a location.

Okfuskee County

Shock and others' No. 2 Lucinda, SW cor. SE SE SW Section 25-10-11, is a rig. Olean Petroleum Co.'s No. 1 Lucinda, SE cor. SW Section 25-10-11 (old well drilled deeper) was fishing at 3,160 feet.

Okmulgee County

Denton Marshall's No. 4 Colbert, NE cor. SW NW Section 14-14-14, was drilling at 100 feet. Castleman and others' No. 9 Thomas, SE cor. NW SW SE Section 23-14-14, made 25 bbls. from 980-1,005 feet.

Osage County

Galt Brown's No. 2, SW cor. NE SW NE Section 30-24-8, is a rig. A. H. Kasishke, Inc.'s No. 1, NE cor. NW Section 24-24-7, was spudding. Oklahoma Power & Water Co.'s No. 1, SE cor. SW SE NW Section 9-21,9, was abandoned at 2,397 feet.

Pottawatomie County

Watchorn Oil & Gas Co. and others' No. 1 Huffman, NE cor. SE NE Section 30-6-5, was abandoned at 3,698 feet.

Pontotoc County

Gilbert and others' No. 1 Starritt, NW cor. SE Section 28-4-6, is a rig. McGraw and others' No. 1 Starritt, NW cor. SE Section 21-5-5, is a location. Benedum & Trees' No. 1 Starritt, SW cor. NW SW Section 28-5-5, made 100 bbls. from 1,744-66 feet. Sunbeam Oil Co.'s No. 1 Miller, SW cor. NE NW Section 27-5-6, was abandoned at 1,485 feet.

Stephens County

Dun Marr Oil Co.'s No. 2 Dunham, SW cor. NE NE Section 11-2s-8w, was drilling at 100 feet. Pace Brothers' No. 1 Toney, SW cor. NE NW Section 27-2s-7w, was abandoned at 1,809 feet.

Tulsa County

J. Stein and others' No. 1 Haikey, CSL SW SE Section 32-18-14, is a rig. Lambert and others' No. 1 Adams, NE cor. Section 15-19-14, was drilling at 1,400 feet. Owen and others' No. 9 Haikey, CSL SW SE Section 33-18-14, was completed for 2 bbls. from 1,497-1,530 feet.

Wagoner County

Pure Oil Co.'s No. 2 Kennedy, SE cor. NE NW Section 9-18-15 (old well drilled deeper), rigging up 2,665 feet.

ILLINOIS GASOLINE TAX

SPRINGFIELD, Ill., Feb. 4.—A report from the Illinois highway advisory commission giving recommendations for the expenditure of $201,280,000 of road funds in the next four years has been received by the state legislature. The report urges the state highway department to turn half of the 2 cents it gets from the gasoline tax levy to the cities, while the counties would continue to receive 1 cent of the 2-cent tax. No specific projects were listed. Chicago would receive $20,050,000 in the four-year program.

T. E. KIRKBRIDE DIES

Thomas Edward Kirkbride, 74-year-old pioneer oil man, having followed production from Pennsylvania to Oklahoma from the time he was 8 years old, died last week at his home in Tulsa. He was born in Ogdensburg, N. Y., and came to Tulsa in 1908.

F. F. FILTEAU DIES

CHATHAM, Ontario, Feb. 4.—Fred F. Filteau, for many years active in the Alberta oil industry, died at Calgary recently, aged 44. He was a native of Minnesota.

Bill to Give Public Service Commission of Kansas Greater Authority Is Introduced in Senate

By W. A. SPINNEY
Staff Correspondent, Kansas Fields

During the week a bill to amend and strengthen the Kansas oil proration act was introduced in the state senate by Senator Ralston of Eldorado, who said the measure was similar to a uniform bill proposed for the 10 major oil producing states.

Definition of the term waste would be enlarged under the bill to include production in excess of reasonable market demand, or transportation or marketing facilities. The measure also enlarges and would give the Public Service Commission the power to determine the average cost of production in the State and to curtail the production when the market prices fall below the average cost of producing oil.

The well extending production in the Mabee Pool, McPherson County, Kansas, a mile and a half south into Harvey County, was reported to have started flowing at the rate of 20 bbls. an hour from the Hunton lime. A wildcat well in Marion County found water in the Wilcox sand, adding another dry hole to that county. The Viola lime production in the south end of the Ritz-Canton-Decker Field in McPherson County was extended to the west during the week. Sinclair Prairie Oil Co.'s well in the Stratman Pool, in Ellsworth County, extended production one location.

The State's oil production shows increase of 2,000 bbls. daily for the week ending February 4 over the previous week, making the total daily average approximately 96,250 bbls.

The extension well in the Mabee Pool, in McPherson County, Lee and others' No. 1 Wall, NW cor. SW Section 4-22-3w, Harvey County, which extended the production over a mile south into Harvey County, started flowing during the week, making 20 bbls. of oil an hour from the Hunton lime at 3,495-3,507 feet. This well was drilled into the Hunton lime about two weeks ago.

The outlet for crude oil produced in the Hollow Pool, in Harvey County, was reduced from 1,500 bbls. a day to 1,000 bbls. a day on January 26. It was increased to 1,500 bbls. again on January 28 by the Hollow Pipe Line Co.

Location has been made for Gaume & Maxwell's No. 1 Goering, SE cor. NE SW Section 24-21-3w, McPherson County, about 2½ miles east of production in the Voshell Pool, and northeast of the Mabee Pool.

J. H. Reid and others' No. 1 Keefer, on Block 1, the Canton townsite, in Section 21-19-1w, on the east side of the Ritz-Canton-Decker Pool, McPherson County, was completed as a gas well from the chat at 2,965 feet, where it gauged 1,500,000 feet a day.

Rex Etnyre Oil Corp. has rig up for No. 1 Arnesman, SW cor., Section 10-15-7w, Ellsworth County, and tools are expected to be moved in soon. This location is north of the Mid-Kansas Oil & Gas Co.'s No. 1 Kanak, in Section 15-16-7w, another wildcat test, which found gas at 1,665 feet and was expecting to reach the Siliceous lime soon. No. 1 Arnesman is located on a block of 4,000 acres on which a favorable geological report was made.

Production Extended

The Viola lime production was extended to the west in the south end of the Ritz-Canton-Decker Field in McPherson County, by Tom Palmer and others' No. 1-B Winn, NE cor. NW SE, Section 7-20-1w. The Viola lime was found from 3,414-22 feet where oil rose 1,000 feet in the hole. A pumping test will be made of the oil showing.

Water was found in the Wilcox sand in J. E. Farrel and others' No. 1 Williamson, C NW SE, Section 21-19-4, a wildcat in Marion County. The owners are planning to underream the casing to the bottom of the hole and then drill deeper to the Siliceous lime. This well found a showing of gas at 2,362 feet and oil and gas at 2,335 feet. The test was drilled between two other wells that had found showings of oil in the Wilcox sand.

The production in the Stratman Pool in Ellsworth County was being extended by the completion of Sinclair Prairie Oil Co.'s No. 2 Stratman, SE cor. SW, Section 1-17-10w. Oil rose 1,850 feet in the hole in 12 hours from the Siliceous lime at 3,240-71 feet. It is the second well on this lease.

Lassen, Detrick and others' No. 1 Neufeldt, NW cor. NE NE, Section 21-21-3w, in the south end of the Voshell Pool, in McPherson County, flowed 650 bbls. of oil in 17 hours from chat at 3,039-95 feet. It also made 1,500,000 feet of gas a day. The well appears to be good for about 800 bbls. a day by a natural flow. This possibility could be increased if it is swabbed.

Potential of Abilene Arch Pools

The Abilene Arch which runs in a north and south direction through Reno, Harvey and McPherson Counties, was discovered about four years ago and since that time a potential production of approximately 150,000 bbls. a day has been found in these counties.

The discovery well on the Abilene Arch was Ted Washabaugh and others' No. 1 Voshell. It opened the Voshell Pool, and is still producing oil along with 120 other wells. The potential production of the other pools that have been developed along the Abilene Arch, include the Haury Pool, in Reno County, with a potential of 500 bbls. daily; the Blake Pool, in Reno County, with 2,500 bbls. a day potential; Hollow Pool, in Harvey County, with 30,000 bbls. daily potential; Mabee Pool, in McPherson County, with a potential of 15,000 bbls. daily; Voshell Pool, with a potential of 18,000 bbls. daily; Johnson Pool, in McPherson County, potential 14,000 bbls. daily, and the Ritz-Canton-Decker Field, in McPherson County, with a potential of around 75,000 bbls.

Every one of these fields can be extended by additional drilling. All of the pools are being prorated.

Oil Industry Aids Farmers

The oil industry continues to be a help to the landowner. This is revealed in a number of counties where the records show that in some a majority of available land is under lease for oil and gas. In the central and western parts of the State millions of dollars were paid in rentals to the landowners on lands under lease in 1932. The total amount from the lease rentals is believed to exceed the taxes charged against the lands.

Taking as an example of the large sums paid in rentals, experience of the landowners in Barton County, is cited. In that county there are 566,384 acres of taxable land, according to a survey made by the Great Bend Title & Abstract Co. Taxes on this land in 1932 totaled $287,325. Oil companies paid out in rentals on leases in this same county $332,242, which is a sum exceeding the taxes by about $45,000.

Records show that about 422,990 acres of Barton County's total acreage is leased for oil and gas. The leased acreage amounts to approximately 76 per cent of the total area of the county.

The majority of the companies have always paid the landowners $1 an acre a year rental and most of them did during 1932. Some of the companies and a few individual operators reduced their rentals to 50 cents an acre per year. It is believed that an average of 75 cents an acre would be a fair estimate of the amount or revenue received by the landowners in Barton County during 1932, from oil and gas leases.

The figure for the total amount of taxes on Barton County land during 1932, $287,325 was furnished by the county treasurer and amounts to an average of 57 cents an acre, as compared to the oil revenue of 58 cents an acre for all the land in the county.

This amount does not include the bonus paid to some of the landowners for some of the leases that were taken during the year 1932 nor does it include the monies received at the office of the register of deeds for the registrations of these instruments.

Wildcat Operations in Kansas

(Descriptions are East unless marked otherwise)

BARTON COUNTY

Company, farm and location—	Remarks:
Vickers Petroleum Co.'s No. 1 Kerr, NW SE Sec. 15-16-12w	Spudding.
Rankin's No. 1 Soosey, C SW NE Sec. 34-18-12w	S.D. 160 ft.
Doherty et al's No. 1 Roesler, SW NE Sec. 11-18-11w	S.D. 1,975 ft.
Skelton Oil Co.'s No. 1 Ott, C SE SE Sec. 16-19-14w	Set liner 3,530-46 ft.; show oil; S.D. 3,605 ft.

BUTLER COUNTY

Reeser's No. 1 Hull, NW SE Sec. 8-26-9	Spudding.

DICKINSON COUNTY

Severs' No. 1 Livingood (O.W.D.D.), SE NW Sec. 13-13-2	Abd. 4,900 ft.

ELLIS COUNTY

Phillips Pet. Co.'s No. 1 Unknown, C SW Sec. 33-11-17w	Location.

ELLSWORTH COUNTY

Sinclair Prairie and Olson's No. 1 Brack, C SW SW Sec. 17-14-10w	Drlg. 2,375 ft.
Mid-Kansas Oil & Gas Co.'s No. 1 Kanak, NE SW Sec. 15-16-7w	Abd., wtr., 3,305 ft.
Rex Etnyre's No. 1 Arnsman, C SW SW Sec. 10-15-7w	Rig.
Buckford's No. 1 Burke, C NE SW Sec. 14-14-9w	S.D. 50 ft.
Gurley Bros. and Barnsdall's No. 1 Union Pacific, NW SW Sec. 7-14-7w	Abd. 3,601 ft.
R. Gear et al's No. 1 Kroboth, SE NW Sec. 12-15-10w	Drlg. 3,160 ft.

GRAHAM COUNTY

Schleimeyer et al's No. 1 Smith, SE Sec. 24-8-25w	S.D. 3,976 ft.

GREENWOOD COUNTY

Knight et al's No. 1 Moser, NE SW SW Sec. 33-22-12	Location.

HARVEY COUNTY

Phillips Pet. Co.'s No. 1 Weeks, NE SE NE Sec. 30-23-2	Rig burned 2,710 ft.

MARION COUNTY

Farrell et al's No. 1 Williamson, C NW SE Sec. 21-19-4	Drlg. 2,385 ft.
Vernon et al's No. 1 Schmidt, C SW NW Sec. 35-19-1	Abd. 3,324 ft.

McPHERSON COUNTY

Lario O. & G. Co.'s No. 1 Wilke, C SE NE Sec. 34-20-4w	Fishing 1,833 ft.
Whan et al's No. 1 Nelson, NW SE Section 18-19-2w	Location.
Snyder et al's No. 1 Carlson, SE cor. Sec. 4-19-3w	S.D. 2,858 ft.
Sidwell et al's No. 1 Nichols, NE NW NW Sec. 28-17-1w	S.D. 1,205 ft.

MORTON COUNTY

Hydraulic Oil Co.'s No. 1 State Land, NW SE Sec. 32, 34-43w	T.D. 3,640 ft.; temp. abd

NESS COUNTY

Sinclair Prairie Oil & Gas Co.'s No. 1, C SW SW Sec. 16-19-21w	Drlg. 4,675 ft.

NORTON COUNTY

Richards et al's No. 1 Colby, Sec. 17-4-21w	Rig.

OSAGE COUNTY

Briggs & Smith's No. 1 Wood, SE NW Sec. 21-14-15	S.O. 2,190-2,200 ft.; temp. abnd.

PRATT COUNTY

Minnescah O. & G. Co.'s No. 1 Hardesty, SW SE SE Sec. 28-27-11w	Drlg. 3,535 ft.

RENO COUNTY

Skelly Oil Co.'s No. 1 Cole, C SE NW Sec. 4-26-8w	Drlg. 3,348 ft.
F. L. Johnson's No. 1 Crotts, NE NW NE Sec. 27-26-10w	Drlg. 120 ft.

RICE COUNTY

Langston et al's No. 1 Wells, NE SE Sec. 4-20-9w	Rig.
J. Liggett et al's No. 1 Thodel, C NW NW Sec. 13-21-7w	S.D. 50 ft.

SALINE COUNTY

Frank Dieter's No. 1 Fulton, SW NW Sec. 14-16-2w	Rig.

SEDGWICK COUNTY

Cameron-Great Basin Oil Co.'s No. 1 Landon, C SE NW Sec. 13-28-2	Top Sil. 3,303 ft.; S.D. 3,531 ft.

STEVENS COUNTY

Argus Prod.'s No. 2 Christopher, C NE Sec. 10-33-39w	S.D. 5,521 ft.

STAFFORD COUNTY

Atlantic Oil Prod. Co.'s No. 1 Gates, NW SE Sec. 27-21-13w	Rig.
Stringer et al's No. 1 Swindle, SW NE Sec. 2-25-11w	Spudded; S.D.

SUMNER COUNTY

Deal Oil & Gas Co.'s No. 1 Thompkins, SW cor. Sec. 26-33-1	Machine.

WOODSON COUNTY

Spencer et al's No. 1 Weidel, NW cor. Sec. 5-24-15	Drlg. 1,573 ft.

Butler County

Osmer and others' No. 1 Bailey, SW cor. NE Section 12-25-4, was abandoned at 915 feet.

Chase County

Selby and others' No. 1 Leedy, SE cor. SW SW Section 25-22-9, was completed for 75 bbls. from 2,477-2,510 feet.

Cowley County

Hollis and others' No. 2 Day, NW cor. SE NW Section 25-34-6, is a rig.

Greenwood County

Ellis and others' No. 1 Norton, SW cor. NE SW Section 15-22-12, was spudding. Theta Oil Co.'s No. 1 C. Norton, SE cor. SW NE Section 22-22-12, is a location. Downing and others' No. 1 Reeser, NE cor. SE NE Section 7-24-12, was abandoned at 1,822 feet. Morris and others' No. 1 Smith, SE cor. NW NW Section 7-25-13, was abandoned at 1,640 feet.

McPherson County

Johnson and Darby Petroleum Corp.'s No. 2 Shaw, SW cor. Section 21-19-1w, is a location. Youker and others' No. 3

(Continued on Page 48)

Best Completion in Zwolle Area for Some Time; News From Miller County Rather Negative

By D. H. BANCROFT
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Feb. 6. — Until the last day of the week wildcatting results were of a negative tinge, especially in Miller County, Arkansas. Seven new locations were staked and there were five completions in the district. Just as the week ended there came news of Helis and others' No. 1 Sabine State Bank, SW SW Section 28-8-11, Zwolle, as a 3,500-bbl. well but these later boiled down to an estimated 1,000 bbls. flowing through a barely cracked gate. It appears to be one of the best wells completed in Zwolle in some time. Total depth is around 2,400 feet.

NORTH LOUISIANA

Four of the seven new locations made during the week were in northern Caddo Parish where, as a result of acid treatment of old chalk rock producers, it appears there is some prospect of several new holes being drilled to this horizon and given the treatment. These locations were: Gibson Oil Co.'s No. 1 J. H. Dominick, SW NE Section 31-23-14, a derrick; Rice Brothers' No. 1 Evans, NE NE Section 11-20-16, rigging up; Caddo Prairie Oil & Gas Co.'s No. 1 Hawkins, SE SW Section 14-22-15, and Magnolia Petroleum Co.'s No. 20 Doan-Thigpen, NE SE Section 6-20-15. Gibson Oil Co. also made location for No. 1 Lyon in the SE NE Section 34-20-14 Bossier Parish, across Red River from the Hosston area of Caddo Parish. Alford & Avant have derrick up for No. 1 J. J. Small in the NE NW Section 18-7-10, Zwolle district of Sabine Parish, and Pugh-Hickman Drilling Co., made location for No. 2 Blackman in the NW NW Section 36-8-12.

Completions were: M. M. Stokes' No. 1 Pan American Life Insurance Co., SE corner irregular Section 18-9-10, Concordia Parish, dry and abandoned at 2,025 feet. Contract depth was 2,000 feet but it is possible it will be taken deeper. Loring Oil Co. abandoned No. 21 Bowman-Hicks, SW NW Section 16-7-12, Zwolle, at 5,439 feet as a junked hole. This is one of the four or five deep holes that have been drilled in Zwolle, all of them, so far, without uncovering anything below the present 2,400-2,600-foot production from cracks in the chalk. E. F. Neely's No. 1 Ponder, NE NE Section 16-7-11, also was a dry hole and abandoned at 2,562 feet. C. W. Smith and others' No. 1 Pattison, SE NW Section 33-10-11, is abandoned as a junked hole at 3,440 feet. It had shown some gas and had set 6-inch at 3,424 feet for a test but the pipe collapsed at around 3,100 feet. Pigeon Hill Oil Co.'s No. 2 Union Sawmill, NE NE Section 9-17-12, Union County, Arkansas, was a dry hole at 3,309 feet.

Interesting Test

R. E. L. Silvey's No. 1 Drake estate, Section 14-19-10, Webster Parish, set 6⅝-inch at 2,817 feet (corrected depth) to test the 13 feet of sand claimed from 2,816-29 feet, the first 8 feet of which was reported showing gas and the last 5 feet oil. It is one of the most interesting tests in this territory at this time. Gibson Oil Co., with one location in Bossier Parish and another across Red River in Caddo Parish, as stated, has a block of 4,000 acres centering on Section 31-23-14 for a 3,000-foot test that will be interesting.

In DeSoto Parish, Mrs. A. L. Ibach and others' No. 1 Rambin, NE NE Section 32-11-11, southeast corner of the parish, tested a small show of gas at 2,182 feet but went on and is drilling at 2,425 feet. Jack Whitson's No. 1 Sanders, SW SW Section 19-11-13, had another show at 2,860 feet and is reported standing 500 feet in fluid, the top 100 feet, oil. It sanded up and is cleaning out to run a test. G. T. Shaw's No. 1 Wilkinson, NE SE Section 4-12-10, in the old Red River Field at Coushatta, has 700 feet of oil and a swab in the hole, total depth 2,730 feet.

Baird Brothers' No. 1 Martinez, NW SW Section 2-7-13, is fishing for tubing, total depth 2,410 feet. E. L. Hunt's No. 2 Livingston, SW NW Section 9-7-11, has 1,000 feet of oil in the hole at 2,396 feet. H. M. Jones is arranging to pump No. 1 Raines, NW NW Section 14-7-11, with 1,000 feet of oil in the hole, total depth 2,696 feet. Lion Oil Co.'s No. 1 Trammell, SE NE Section 30-8-11, bailed dry at 2,420 feet and is arranging to go deeper. Rotary Oil Co.'s No. 1 Hale, Section 1-7-13, had 100 feet of oil in the hole at 2,440 feet, total depth, and will make another test at the same depth. Service Drilling Co. at 2,814 feet on No. 2 Smith, NE Section 18-7-11, is shut down.

In Converse, Chief Oil Co.'s No. 1 Bowman-Hicks, NE NW Section 36-9-14, was dry at 1,681 feet and is shut down. Evans Brothers' No. 1 Cranford, SE SE Section 20-9-13, half way between the two producers in the field, is bailing to test 14 feet of lime shale, total depth 1,504 feet. R. L. Gay's deep test, No. 1-A Long-Bell Lumber Co., NW NW Section 10-8-13, cored hard lime and streaks of shale at 7,109 feet.

United Gas Public Service Co.'s No. 1 Matthews, E half E half Section 13-21-5, Claiborne Parish, topped anhydrite at 3,800 feet and is arranging to set 10-inch, total depth 3,900 feet. Pat Marr's No. 1 Caldwell, SW NE Section 23-16-5, Bienville Parish, was not quite so high on the Nacatoch as reported last week. Steel line measure gives him 2,465 feet where he is shut down moving in another boiler. Surface elevation is 295 feet and top of the chalk was at 2,277 feet.

ARKANSAS

Kendall Oil Co.'s No. 2 Fullenwider, NE NE Section 13-17-23, Columbia County, was bailing salt water, total depth 2,520 feet. McDonald & Carroll's No. 1 Adams, SE SW Section 2-19-26, Lafayette County, had a small show of gas at 2,940 feet in 15 feet of sand, bridged over and is arranging for a drill stem test. Rather interesting.

News from Miller county was rather negative. Miller is a red bed proposition just such as Champagnolle was with the exception that Champagnolle was a better bet to start with. It is also a parallel case with Zwolle. If a well in Miller County happens to hit a lens of sand it is a well. If it is 5 feet off it might as well be 5 miles off. As in Zwolle—if a Zwolle well happens to hit a break in the chalk it is a well, if not, it isn't.

Duluth-Arkansas Oil Co.'s No. 1 Beck, NE SW Section 34-15-26, is shut down at 3,100 feet. Jenkins Brothers' No. 1 B. F. Smith, Section 32-15-26, cored red beds at 2,953 feet, 25 feet deeper than the Baker & McMurray producer a half mile west, and is shut down at 3,010 feet after getting salt water on a drill stem test at that depth. Bob Manzeil's No. 1 Smith NE NE Section 32-15-26, was coring red beds at 2,917 feet. C. H. Nelson's No. 1 Rose, SE NW Section 4-16-26, was awaiting orders at 2,917 feet with the bottom in a limy sand formation that had some salt water in it. Sorrells & Tidwell's No. 1 McCowan, NW NE Section 22-15-28, topped the Blossom at 2,124 feet and was shut down in 4 feet of sand at 2,747 feet. Stephens, Byars & Sartan were arranging to make a drill stem test of 2 feet of sand at 2,052 feet on No. 1 Jones, NE NW Section 14-16-27.

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

North Louisiana

AVOYELLES PARISH

Company, well, farm name, section and block—	Remarks:
T. J. Woodley, tr.'s No. 1 Thompson & Koltz, 2,640 ft. E, 200 ft. S, NW cor. Sec. 11-2n-5e	Washing to bottom; T.D. 2,250 ft.

BEAUREGARD PARISH

Beaver Pet. Co.'s (S. T. Ongett, tr.) No. 1 Long-Bell Lbr. Co., 155 ft. S, 725 ft. S, NW cor. NW NW Sec. 34-2s-3w	Began drlg. Jan. 15; cmtd. 10-in.
Trapp & Turnbow's (was Trapp Oil Synd.) No. 1 Long-Bell Lbr. Co., Sec. 26-2s-10	Rigging up.
Trapp & Turnbow's No. 1 S. T. Roberts, 150 ft. S and E, NW cor. NW NE Sec. 6-3-10	Location.

BIENVILLE PARISH

Granver Oil Co.'s No. 1 T. J. Lawhon, 150 ft. N and W, SE cor. NE SE Sec. 15-16-8	Location.
M. H. Marr et al's No. 1 Caldwell, 450 ft. E, 150 ft. N, center Sec. 23-16-5	S.D. 2,475 ft.
R. S. Ross et al's No. 1 W. M. Beck, NE NE Sec. 3-18-8	Rig up.
Texana Oil Co.'s No. 1 Lawson, 180 ft. W, 600 ft. S NE cor. NW NE Sec. 28-16-9	S.D. 1,025 ft.

BOSSIER PARISH

Breazelle & Steckoll's No. 1 Nattin, C SW NE, Sec. 15-22-14	Set 6-in. 2,967 ft; swabbed; show oil and gas 3,018 ft; S.D.
Breazelle & Steckoll's No. 3 Nattin, 300 ft. S and W, NE cor. NW NE Sec. 22-22-14	Moving in rig.
Cryer Oil Co.'s No. 1 fee, 2,400 ft. N, 1,080 ft. E, SW cor. Sec. 25-19-12	Began drlg. Nov. 24; 10-in. 60 ft; drlg. 700 ft.
Gibson Oil Co.'s No. 1 G. C. Lyon, C SE NW Sec. 34-20-14	Location.
A. W. Phillips, tr.'s No. 1 Oden, 300 ft. W, 150 ft. N, SE cor. NW NW, Sec. 4-18-13	Cored 12-ft. sand showing oil; W. O. 1,017 ft.

CADDO PARISH

Bolinger & Walker's No. 1 Thompson, SE SW Sec. 16-22-14	Cored sandy shale 2,442-45 ft.
Rice Bros.' No. 1 Evans, 747 ft. N, 150 ft. W, SE cor. NE NE Sec. 11-20-16	Rigging up.

CLAIBORNE PARISH

Leue Oil Co.'s No. 1 Kiner, Sec. 2-21-7	Rigging up.
A. W. Phillips, Tr.'s No. 1 John Knighton, 330 ft. N, 330 ft. E SW cor. NE SE, Sec. 31-20-7	Derrick.
United Gas Public Service Co.'s No. 1 Meadows, approximately 100 ft. S, center E½ E½ Sec. 13-21-5	Drlg. shale and lime 3,783 ft.
Webster Oil Co.'s (was Robertson & Aurand) No. 1 Smith, 200 ft. S and E, NW cor. SE NE Sec. 8-21-7	Shale 1,780 ft; S.D.

DE SOTO PARISH

Baggett et al's No. 1 Moore, 330 ft. S, 330 ft. W NE cor. NW, Sec. 1-13-15	Began drlg. Jan. 23; 10-in. 66 ft.
Coker et al's No. 1 Boone, 200 ft. N and W, SE cor. SW NW Sec. 12-10-11	S.D. 60 ft.
Donley & Chastain's No. 1 H. Smith, 325 ft. W, 600 ft. N, SE cor. Sec. 31-14-15	S.D. 2,470 ft.
M. B. Gill's No. 1 W. J. Hill, 330 ft. N, 330 ft. E center Sec. 4-10-13	Began drlg. Dec. 1; cmtd. 12½-in. 111 ft.
Mrs. A. L. Ibach, tr.'s No. 1 Rambin, 250 ft. S and E, NW cor. NE NE Sec. 32-11-11	Arranging D.S. test 2,425 ft.
E. T. Oakes' No. 1 R. H. Bryant et al, 200 ft. N and W, SE cor. NE NW Sec. 30-13-15	Cored Oolitic lime showing oil 4,240-60 ft; coring 4,555 ft.
DeSoto Dev. Co.'s No. 1 Nickey, Sec. 7-13-13	Partly rigged up and S. D.
Geo. L. Pace's No. 1 John Cole, 200 ft. N, 150 ft. E, SW cor. SE NE Sec. 11-11-11	Rig up.
G. C. Smith et al's No. 1 Wolluma, 330 ft. N and W, SE cor. Sec. 30-13-13	S.D. chalk 1,520 ft.
E. J. Stanberry's No. 1 Naborton O. & G. Co., Sec. 32-13-11	S.D. fuel 1,250 ft.

(Continued on Page 57)

Daily Average Runs

Daily average runs from the field during the week were 570 bbls. under last week's runs, several of the pools contributing to the decrease, notably Miller County, Arkansas, which fell off about 50 per cent. Total runs were 61,475 bbls. compared to 62,045 bbls. last week. Louisiana runs were 29,975 bbls. compared to 29,895 bbls. last week, and Arkansas shipments totaled 31,500 bbls. compared to 32,150 bbls. Daily average runs from the several pools were:

NORTH LOUISIANA	
Caddo, light	5,155
Caddo, heavy	1,810
Cotton Valley	665
De Soto-Red River	1,735
Elm Grove	360
Haynesville	3,820
Holly	220
Homer	2,680
Pleasant Hill	280
Sarepta-Carterville	710
Urania	3,300
Zwolle	9,240
Total	29,975
Last week	30,165
Difference	190

ARKANSAS	
Champagnolle	1,515
El Dorado	2,695
Lisbon	425
Miller County	300
Nevada County	900
Smackover, light	2,620
Smackover, heavy	22,375
Stephens	150
Urbana	620
Total	31,500
Last week	32,150
Difference	650

Both states	61,475
Last week	62,315
Difference	840

Increase in Field Operations in Conroe District; Completions Are Now Above 175 Mark

By NEIL WILLIAMS
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., Feb. 6.—The closing lid of proration still has failed to cause any slackening in drilling development of the Conroe Field and the past week was marked by an additional material increase in the number of operations there. The present rate at which the field is being drilled up is comparable to East Texas on a somewhat smaller scale. The desirability of Conroe crude and the accessibility of the field to markets is making development there more and more attractive to operators and to companies seeking new crude reserves.

The maximum allowable production per well, however, now has been brought down to a level where it is being felt with full force and where additional reduction may put a cramp in the desire for further increases in activity. Under the readjustment of schedules, effective February 4 for the ensuing 10-day period, the maximum allowable has been set at 116 bbls. daily for 20-acre units and at the rate new wells are being brought in the next adjustment may force that figure below the 100-bbl. level, which considering the 5,200-foot depth of the producing horizon, is getting into the East Texas class. Total allowable for the field still is 18,500 bbls., which is apportioned on a well and acreage basis.

Completions Over 175

Completions the past week brought the number of producing wells in the field above the 175-well mark with the total number of wells being swelled rapidly by the present rate of completion of two or three wells daily. A substantial extension of production westward was effected late in the week by the completion of The Texas Company's No. 1 H. M. Dudley, C. B. Stewart Survey, which is in the sand at a total depth of 5,129 feet with a little over 64 feet of screen in the hole. Another extension well in the gradual movement of the producing limits southwestward was Alpha Oil Co.'s No. 1-A Krohn, which came in flowing 64 bbls. per hour through a three-eighths-inch choke from sand at 5,100 feet. Although directly in line between two producers on the extreme southwestern limits of production, this well is a mile from the nearest producing well.

Under protection of an injunction which the Alpha Oil Co. holds restraining the railroad commission from enforcing proration orders against its properties, this well now is reported flowing 100 bbls. an hour which is being moved out of the field by loading rack. This company has recently completed construction of a double loading rack at Grand Lake, a point on the L&G.N. Railroad, just south of Conroe, and a 4-inch line from the rack to its leases. This company now has four producing wells.

Sun Purchases

One of the largest individual trades which has taken place in the Conroe Field to date was that which was reported consummated the past week by which Sun Oil Co. is to acquire the proven and semiproven properties of Albert Plummer and D. B. McDaniel, who have operated as the Gulf Coast Drilling & Producing Co. These holdings comprise a little over 1,400 acres, including a 60-acre lease and a 40-acre lease in the Theodore Slade Survey, and those operators' Keystone Mills and Hensley leases in the A. Steele and A. S. James Surveys, located on the south side of the field. On these properties are six producing wells and a number of drilling operations which will be completed by the sellers. The latter retained two 40-acre pieces on the extreme west side of the 651-acre Keystone Mills lease in the A. Steele Survey, one of which has been assigned to the McAlbert Oil Co. and the other to the firm of Anderson & Plummer. A test already has been started on the former 40-acre piece. Considerations involved in the trade were not revealed although Plummer & McDaniel retain a working interest in the properties with Sun Oil Co. controlling development and production.

Sun Oil Co. also figured in another trade during the week when it purchased the 80-acre lease of Hamill & Smith on the South Texas Development Co. land in T.&N.O. Survey No. 5. The deal calls for the drilling of four wells. Sun already is the owner of nearly 800 acres at Conroe including the 120-acre Stewart lease in the W. F. Stewart Survey on the east side of production and a 640-acre lease on land of the Keystone Mills Co. in the John Bricker Survey on the extreme south and adjoining the Keystone Mills properties purchased from Plummer & McDaniel.

New Pipe Lines

These trades make Sun Oil Co. the third largest owner in the Conroe Field. Humble Oil & Refining Co. being the first and Tide Water Oil Co. the second. Although at this time Sun Oil Co. has made known no plans for a pipe line it is probable a line will be laid by this company, as such a line would require the laying of less than 20 miles of pipe to connect with the company's line from Humble to Beaumont. If this line is laid it will be the fourth for the field.

Tide Water Oil Co. is rushing work on its new pipe line, the third for the field and this will probably be running oil within two weeks. This company is laying 18 miles of 8-inch pipe from the field to the Humble Field, where it will connect with the line of the Texas Pipe Line Co. which extends from there to Port Arthur. The latter company has a line from Conroe to its main trunk from North Texas through which Tide Water has been offering its oil for transportation but that line has become too crowded while the Humble-Port Arthur line has plenty of capacity.

Output Held Close

Despite the flowing of several wells over proration allowables, the total daily output of Conroe continues to be held reasonably close above the limits and there is very little oil to be obtained above present connections. Unlike in East Texas where considerable oil is reported offered below posted prices, oil in Conroe is pretty well "tied up" and not available on the open market. Three different price schedules, however, still are being maintained, a different posting by each of the three companies (Humble, Texas and Tide Water) posting in the field.

Outside of Conroe, there were few developments of particular importance. While geophysical exploration and leasing continues active generally throughout the Gulf Coast, both in Texas and southern Louisiana, actual wildcat drilling development is at lower ebb at this time than it has been for several months. New wildcat drilling has started up in scattered areas but the number of such tests has not begun to offset the long string of wildcats which have been abandoned within the last several months.

West Columbia

At West Columbia, The Texas Company completed its No. 6 Abrams, which was deepened from a sand at a total depth of 2,956 feet to a sand at 3,026 feet. It set 23 feet of 3-inch screen and in the first four hours flowed 525 bbls. of pipe line oil through a three-quarters inch choke. Gravity of the oil is 20.5 degrees.

Rabbs Ridge

The same company got another good well in the north extension district of the Rabbs Ridge Field, Fort Bend County, where its No. 4 Wolters came in flowing 30 bbls. per hour through a three-sixteenths inch choke from sand at a total depth of 5,280 feet.

Raccoon Bend

Humble Oil & Refining Co. also brought in another good producer on the east side of its Raccoon Bend Field, Austin County, this being No. 4 S. Helmuth, which flowed initially at the rate of 788 bbls. daily through a half-inch choke from sand at 3,267 feet.

Barbers Hill

At Barbers Hill, Texas Gulf Producing Co. completed its No. 11-A Kirby, a deep well on the east side of the dome. The well first was brought in last December from a sand at 6,180 feet but failed to hold up, but since has sidetracked the old hole at 5,381 feet and drilled to a sand at 5,593-5,618 feet. Rated potential of the well, based on initial rate of flow, is 2,300 bbls. daily through a five-sixteenths inch choke.

Manvel

Indications of a 2,000-foot southwestward extension of production at Manvel, Brazoria County, are given in showings encountered in The Texas Company's No. 4 Belcher in a sand at 3,852-79 feet and on which 9⅝-inch casing has been cemented at 3,855 feet. At present there are only three producers at Manvel, including the discovery well, No. 1 Belcher, the nearest well to the present test, No. 3 Belcher, north of No. 1, and No. 1 Ewing, a north offset to No. 3. Another well, No. 2 Belcher, 1,500 feet southeast of the discovery well, was completed as a producer but failed to hold up and was abandoned. The discovery well is producing from a 5,600-foot Oligocene sand, in which No. 2 Belcher also was completed. The other two wells are in a 4,000-foot Miocene sand. If the 3,800-foot sand in the present test is the same sand it is considerably higher than in the other wells. Only one other well has been drilled at Manvel, that being No. 1 Ewing, a deep test located three-quarters of a mile north of present production. Two other tests also are drilling now, both of these being to the north.

Wharton County

Steed Production Co.'s No. 1 Lurker, first wildcat drilled on what is known as the Leech prospect in southern Wharton County, created some interest late in the week when it cored a sand showing oil and gas at 4,270-75 feet. The hole at latest report was being cored deeper at 4,288 feet in water sand. Smith and associates' No. 1 Mitchell, a wildcat on Shell Petroleum Corp.'s Lake View prospect, also Wharton County, has pulled successfully the full string of screen and tubing which was swung at a total of 6,386 feet with bottom of hole at 6,453 feet, and has resumed drilling and at latest report was in shale at 6,453 feet. This test also created considerable interest because of gas showings encountered in several different sands. In the test

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Gulf Coast Fields and Wildcats

Week Ending February 4

Company, farm and location—	Remarks:
RACCOON BEND—AUSTIN COUNTY	
Humble O. & R. Co.'s No. 4 S. E. Helmuth, Wm. Harvey Sur.	Comp. 785 bbls. P.L. oil, ¼-in. choke; 225 lbs. on tubing; 3,267 ft.
Humble O. & R. Co.'s No. 9-A Walton, W. C. White Sur., 150 ft. SW of N cor. of 50-ac. tract and 181 ft. SE parallel to NE line	Spudded.
Humble O. & R. Co.'s No. 11 Woodley, Wm. Harvey Sur., 412 ft. out of S cor. of tract	Location.
DAMON MOUND—BRAZORIA COUNTY	
Intercoastal Oil Co.'s No. 10 Wisdom, A. Darst Sur., 440 ft. from NW line, 170 ft. from SW line of tract	Drlg. shale 3,662 ft.
A. W. Speed's No. 1 D. F. Bryan, A. Darst Sur., 105 ft. from N line, 45 ft. from W line of lease	S.D. 1,051 ft.
Sinclair Prairie Oil Co.'s No. 31-A Bryan, 155 ft. N 45 deg. E of SW cor. of Blk. 38, Masterson Subd., and 140 ft. S 45 deg. E of Elmire Bryan tract in A. Darst Sur.	No report.
Sinclair Prairie Oil Co.'s No. 10 Masterson (W.O.), A. Darst Sur.	No report.
H. Wisdom's No. 1 Wisdom, 50 ft. from SE line, 75 ft. from SW line of Blk. 5, Lot A, A. Darst Sur.	S.D. 1,045 ft.
MANVEL—BRAZORIA COUNTY	
Alpha Oil Co.'s No. 1 W. H. Nichols, H. M. Little Sur., 200 ft. W, 200 ft. N of SE cor. of tract	Drlg. shale 5,014 ft.
R. A. Gamble et al's No. 1 Sherwood, Lot 15, Allison-Richey Subd., H. N. Little Sur.	Drlg. shale and lime 3,862 ft.
The Texas Co.'s No. 4 Belcher, Harvey Little Sur., 2,900 ft. S, 42 deg. W, 400 ft. S, 48 deg. E, out of N cor. of lease	Sand S.O. 3,852-79 ft; cmtd. 9⅝-in. csg. 3,855 ft.
WEST COLUMBIA—BRAZORIA COUNTY	
The Texas Co.'s No. 6 Abrams (W.O.), Geo. Tennille Sur.	Set 23 ft. of 3-in. screen 3,026 ft; flowed 525 bbls. in 14 hrs; ¾-in. choke.
BARBERS HILL—CHAMBERS COUNTY	
Humble O. & R. Co.'s No. 3 Kirby, Henry Griffith League, 100 ft. W of E line of lease and 200 ft. N of No. 1	Drlg. caprock 1,137 ft.
Mills Bennett Prod. Co.'s No. 2-C Gulf fee, Wm. Bloodgood Sur., 175 ft. N of No. 1	Shale 1,341 ft; cmtd. 13-in. (O.D.) csg.

California Curtailment Now Nearing Objective; Three Fields Are Responsible for Excess

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., Feb. 4.—State production showed another substantial decline during the week, and while we are are not yet out of the rough by any means, it begins to look as though the price cut which appeared so imminent a few weeks ago will be averted, or at least delayed for several weeks. Those in close touch with the situation are of the opinion that if crude oil production in California can be cut back to approximately 440,000 bbls. per day and maintained around that level for another 60 days, conditions will rectify themselves early in the spring. Executives of the major companies are not any too optimistic over the outlook, however, but are hoping producers of crude will recognize the urgency of the situation and, by effecting stringent curtailment, eliminate the necessity of price reductions.

Three fields in California are responsible for practically all of the excess production at present. Late this week Santa Fe Springs was producing 4,520 bbls. per day in excess of its daily quota of 50,000 bbls., followed by Long Beach with a daily excess of 6,600 bbls., and Huntington Beach with an overage of 2,630 bbls. That substantial progress was made in reviving curtailment work at Huntington Beach during the past week is evidenced by the fact that on January 25 the field was producing 12,075 bbls. in excess of the prescribed allowable, compared with a current excess of approximately 2,500 bbls. per day. Further efforts are under way to secure more effective curtailment in the three principal offending fields and Umpire Pemberton is quite sanguine over the outlook, as most of those still overproducing recognize the necessity of meeting curtailment.

Umpire Urges Proration

Umpire J. R. Pemberton, when forwarding the production quotas for February to each producer, called attention to the fact that "during January several events combined to accentuate the gravity of the situation which confronted the oil producers of California with the advent of the new year. Chief among these additional difficulties that now confront the industry are (1) crude oil and gasoline price demoralization in the Mid-Continent; (2) unsatisfactory marketing conditions in the Pacific Northwest; (3) lower gasoline consumption due to inclement weather; (4) continued overproduction of Los Angeles Basin fields; and (5) unbalanced increases in storage oil. It is true that during January the Kettleman Hills Field reduced its production to the prescribed quota and the Huntington Beach Field, after a virtual flow test of several weeks' duration, finally cut its production by nearly 8,000 bbls. per day and thus removed that much excess from state production. However, the continuance of the lowered production at Kettleman Hills is contingent upon the satisfactory curtailment performance of Los Angeles Basin Fields, while the production of Huntington Beach cannot be depended upon to remain at satisfactory figure unless there is better co-operation among the producers of that field.

"However, the adverse factors mentioned more than offset the gains made to the extent that many substantial nonpurchasing producers were moved to volunteer additional sacrifices as a stay to prevent the collapse that seemed impending. Many of these operators voluntarily proposed to keep an additional amount of their potential off the overloaded market without hope of further reward than to maintain a price that would protect the continued existence of themselves as well as that of those shirkers who have received the benefits of curtailment without giving thereto. In all fields possible it was suggested that a certain percentage of supercurtailment be taken by all operators in order to keep unwanted oil off the market, while in fields where competition and lack of team work will not permit additional curtailment it was proposed that a certain percentage of oil produced be stored by the producer in tankage rented at a reasonable rate from larger companies. The oil thus stored above or below ground would then be drawn upon to supply the first increase in market demand in preference to an increased quota for the state or any field. Such a plan is already operating satisfactorily in Texas where the Humble Oil & Refining Co. is paying for only 75 per cent of the allotments it runs but is receiving the remaining 25 per cent for storage to the credit of the producer at a storage rate of 2 cents per barrel per month. It is not unlikely that some of these proposals will so crystallize that definite action may be taken on them during the coming month. However, I must remind you that if there were no curtailment evaders in the California oil industry it would not now be necessary for the rest of the industry to consider ways and means of protecting themselves from the unfair practices of others. Supercurtailment, the expense of storing your own oil and perhaps worse eventualities can be avoided by consistently keeping oil production in California within rather than in excess of the demand. To avoid such excess, every producer in California should consider it an obligation to limit his February production to the allotments prescribed in the proration schedule and I am again urging every producer to accept and meet this obligation before it is too late."

Crude oil production in California during the past 24 hours closely approximated the state's quota of 441,000 bbls. per day and if Santa Fe Springs and Long Beach operators can be induced to make a renewed effort, the curtailment objective may possibly be reached within a few days. Several major companies are reported to have definitely decided not to make any further additions to stocks and that if consumption drops below production and purchases producers will be obliged to store oil until consumption increases. Rush M. Blodget, general manager of the California Oil Producers Sales Agency, in a recent communication to agency members calls attention to the fact that California producers are nearing the curtailment objective. Mr. Blodget, in his letter, says that "by effecting curtailment we will have done more than maintain the stabilization of an industry as we will have proved that sturdy moral fiber still sustains the California oil industry. If Los Angeles Basin fields, principally Long Beach and Santa Fe Springs, rally to the support of this splendid movement, the situation is saved and California can then justly claim greater success with voluntary co-operative curtailment than other producing states can with legal force. Leaders in the industry have despaired of success on several occasions. True, the threatened collapse has never occurred. This has not been because the wolf was not there but because in every instance the independents of the industry have rallied their moral forces and saved the situation. For two years we have steadily moved forward while the state reduced gross storage slightly, and the price to the producer increased slightly in spite of marketing wars. This has been accomplished in the face of falling demand and decreased offshore shipments. It might be interesting to the independent producer in California to know that he is the beneficiary of an enlightened policy on the part of certain sustaining purchasers of California crude oil. It is clearly evident that many purchasing companies in the Mid-Continent believe in cheap crude, recouping out of gasoline prices. The geographical conditions in the Mid-Continent centers of consumption with the relation to the location of production make this expedient for purchasers in that area. California buyers appear to believe in a fair price for crude oil, provided reasonable self-restraint by independents in production volume makes it possible to sustain such a crude oil price."

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	January 21		January 14			
Intercoastal-domestic—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Fuel oil	74,775	10,682	.....	.....	74,775	.....
Diesel and gas oil	74,458	10,637	101,759	14,537	176,217	.....
Gasoline	.....	.....	230,311	32,973	391,631	367,739
Kerosene	.....	.....	170,458	24,351	250,130	.....
Foreign exports—						
Crude oil	5,050	721	31,997	4,571	214,196	285,559
Fuel oil	307,193	43,885	209,660	29,951	630,183	608,760
Diesel and gas oil	104,212	14,902	53,356	7,622	232,447	128,069
Gasoline	103,855	14,836	207,856	29,694	403,527	772,432
Kerosene	11,445	1,635	63,785	9,113	75,230	178,967
Naphtha distillates	.....	.....	.....	.....	.....	41,175
Coastwise-domestic—						
Crude oil	188,913	26,988	193,080	27,583	637,748	986,444
Fuel oil	119,798	17,114	329,912	47,130	579,390	1,171,756
Diesel and gas oil	61,591	8,799	53,847	7,692	155,142	192,643
Gasoline	100,420	14,346	305,105	43,586	680,432	780,319
Kerosene	3,990	570	.....	.....	16,696	6,038
Naphtha distillates	27,651	3,950	.....	.....	27,651	.....

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	104,050	14,864	.....	.....	104,050	.....
Kerosene	.....	.....	.....	.....	154,070	.....
Foreign exports—						
Crude oil	.....	.....	.....	.....	.....	57,325
Fuel oil	.....	.....	67,825	9,689	67,825	380,408
Diesel and gas oil	.....	.....	34,569	4,938	34,569	110,462
Gasoline	243,925	34,846	139,122	19,875	383,047	.....
Kerosene	20,675	2,954	27,843	3,978	48,518	106,486
Lubricants	.....	.....	2,225	318	2,225	.....
Coastwise-domestic—						
Fuel oil	60,311	8,616	32,937	4,705	116,698	74,591
Diesel and gas oil	4,494	642	12,973	1,853	17,467	97,508
Gasoline	115,894	16,556	30,107	4,301	207,445	319,165
Kerosene	5,314	759	2,993	428	12,060	.....

Dominguez

In the Dominguez Field of Los Angeles Basin, the Union Oil Co. completed No. 19 Hellman, doing 384 bbls. of 29.6 gravity oil per day on a gas lift from 4,458 feet, the hole having been finished with 4¾-inch liner carrying 154 feet of perforated. The company also conducted a preliminary production test on No. 7 Hellman, a former upper zone producer which has been redrilled and deepened to the 4,400-foot level. Republic Petroleum is reconditioning No. 2 Shell-Childs and may succeed in developing commercial production. Republic completed No. 2 Childs several weeks ago and by careful engineering work brought in a 700-bbl. producer.

Huntington Beach

The completion of Wilshire Oil Co.'s No. 5 Huntington and Vicaroo Oil Co.'s No. 1 a few weeks ago has stimulated development work in the Huntington Beach Field and work in this area is expected to show a further increase during the next several weeks. The Vicaroo Oil Co. has started rig construction in close proximity to the company's original completion and probably will spud in within 10 days. Wilshire Oil Co. is rigging up rotary equipment over No. 1, abandoned over a year ago, and should start reconditioning work within a day or two. In addition, Wilshire is making hole in No. 6-A Huntington, spudded in two weeks ago.

In the east end of the Montebello Field of Los Angeles Basin, Universal Consolidated, a subsidiary of Richfield Oil Co., has staked location for a deep test to be drilled on the Cruz property and tentative plans call for immediate work. This projected deep test is rather far out on the east plunge of the structure, but has considerable merit and it would not be surprising if it developed commercial production. Universal has acquired three leases in the immediate area, all of which border on contours of the productive horizon. This deep zone exploration is of special interest because it might precipitate offset drilling, although it is not likely. The Montebello Field has never been given a conclusive deep test and the exploration work of the Universal Consolidated will be watched with interest. In the West Coyote Field, the Standard Oil Co. completed No. 112 Murphy-Coyote, flowing 1,220 bbls. of 31.4 gravity oil after plugging back the hole from 6,580 feet to 6,425 feet. This well was given a preliminary production test late last week, and while it showed considerable water, it has cleaned up in good shape, although production is still cutting approximately 8 per cent. The Standard has one other well under way in this field but it will probably be several weeks before the bit reaches the lower horizon. The Barnsdall is swabbing for a production test in No. 5-A Rosecrans, a deep test in the Rosecrans Field, but appears unable to complete a flowing well at the present depth. This project is expected to be deepened to the 6,000-foot level for a conclusive test of the Trust zone encountered several weeks ago in No. 2 Trust, an outpost in the extreme western part. In the Richfield district The Texas Company is pulling tubing from No. 1 Steiner, an offset to No. 2

Davenport of the Forward Petroleum Co., preparatory to drilling ahead. Otis Hoyt and the Forward Petroleum are completing preparations to undertake additional work. In the Seal Beach Field, the Standard Oil Co. is reaming No. 20 San Gabriel at 6,183 feet.

Lost Hills-Belridge

In the Lost Hills Feild of Kern County the Associated Oil Co. is preparing to drill out cement in No. 1 Williamson, following the landing of 1,922 feet of 22-inch casing. This projected deep test, being drilled in conjunction with the Richfield and other operators holding adjacent acreage, should determine deep zone possibilities of the Lost Hills Field. Tentative plans contemplate the landing of 16 or 18-inch casing below the high head water zone anticipated at approximately 3,500 feet. In the Belridge Field, the Ohio Oil Co. is still drilling in No. 1 Bloemer, an outpost which has shown exceptionally favorable indications from the 8,000-foot level. This project appears to be correlating approximately 600 feet lower structurally than the Belridge Oil Co.'s deep zone discovery well, which was completed at 8,062 feet. No. 1 Bloemer passed the 8,300-foot level several days ago and will be watched very carefully. The Belridge Oil Co. concluded drilling operations in No. 20-35 at 5,450 feet and is reaming preparatory to conducting a production test. All of the Belridge Oil Co.'s recent completions in this field have been finished with casing sufficiently large to permit subsequent development of the lower zone, which has not been produced up to the present.

Kettleman Hills

North Kettleman Oil & Gas Co.'s No. 1 Lillis-Welsh is perhaps the most important drilling project under way in the Kettleman North Dome Field. It will extend the western limits if deep zone production is developed. No. 1 Lillis-Welsh is being drilled out following the landing and cementing of a special string of 7-inch casing at 9,638 feet. It is the present intention to conduct a production test with the bottom of the hole at 9,932 feet before drilling ahead. If commercial production is not developed, drilling will be resumed and the hole carried to approximately 11,000 feet if necessary. The Kettleman Hills North Dome Royalty Syndicate has about completed rigging up rotary equipment on No. 1 Barbour, a projected deep test in Section 36-21-17. Heavy equipment will be used and, with ample finances provided, the sponsors propose to drill an 11,000-foot hole if necessary. The Standard has staked location for a new well in the North Dome, No. 4-29-J, in Section 29-21-17. The Union Oil Co. is drilling No. 3 Ameruda King at 6,700 feet, expecting to finish it in February. The brown shale in this field is extremely hard and consequently delays the progress of the bit. Rapid footage is usually recorded after passing through the brown shale in practically all wells in the North Dome. Superior Oil Co. has spudded in No. 6 Huffman in the west end and, although a rig was erected for No. 5 Huffman a few months ago, the company will not drill up this location until after completion of No. 6, which is nearing the 2,000-foot level. In the Middle Dome of Kettleman Hills, the Standard is still delayed with mechanical trouble in No. 6-29-V, but progress has been made in cleaning out the hole and it is probable the company will succeed in removing the 7-inch casing.

Ventura Avenue

The Associated is swabbing two wells for production in the Ventura Avenue Field and both Nos. 21 and 26 on the Ventura Land & Water Co. property should be tanking oil in the near future. Drilling operations were concluded on the former at 7,125 feet and the hole finished with a 6⅝-inch perforated liner and an 8⅝-inch flow string. No. 26 Ventura Land & Water has been bottomed at 7,498 feet and finished with a 5⅝-inch liner including 1,400 feet of perforations. The Associated is working on two other wells in this field and has started grading location for No. 133 Lloyd. The General Petroleum is rotating at 5,500 feet in No. 15-A Barnard, a projected deep test which will be bottomed in the deep 57 zone, discovered by the Associated Oil Co. about two years ago. This lower horizon has not been developed since completion of No. 57 Lloyd, although two or three additional wells have been drilled for exploratory purposes. No well located on top of the structure has yet been drilled entirely through the productive formation in the Ventura Avenue Field.

In the San Miguelito Field of Ventura County the Chanslor-Canfield Midway Oil Co. and the Continental Oil Co. were slowed down for a week or so due to inclement weather, but have about completed road construction to their respective wells. Honolulu Consolidated has been making good progress in No. 1 Valenzuela, with the bit below the 4,400-foot level. Wilshire Annex Oil Co. has recovered the fish in the wildcat in the Sulphur Mountain district, and drilling has been resumed. Indian Petroleum Corp., which recently completed laying of approximately 2,000 feet of 4-inch pipe from the company's tideland project in the Rincon Field to General Petroleum Co.'s Needham pier, is experiencing a little difficulty in developing commercial production. This tideland well is bottomed at 2,115 feet and has a 6⅝-inch perforated liner landed just off bottom. Correlation work indicates the Indian Petroleum's well is running substantially higher structurally than previous completions on the mainland. This tends to confirm the opinion that the apex of the Rincon Field is located out in the open ocean.

Rincon and Elwood

The Woodrow Oil Co. has reached 6,343 feet in No. 1 Lomas in the Rincon Field, but probaly will be obliged to continue drilling to pick up the anticipated pay. Two new locations have been staked in the Santa Barbara Mesa Field and both of these, R. H. McIntosh's No. 1 Ora and the Paramount Oil Co.'s No. 1 Macmillan, are expected to get under way within a few weeks.

The Elwood Field of Santa Barbara County was inactive during the week as the recent completion of Barnsdall and Rio Grande Oil Co.'s No. 9 on permit No. 88 concluded development work in that area for the present. The Standard has passed the 6,225-foot level in its wildcat on Santa Rosa Island off the coast of Santa Barbara County and, while no favorable indications have been logged, the company is expected to continue drilling operations.

Mount Poso

Several new wells are getting under way in the Mount Poso Field of Kern County and two, No. 3 Dominion of the Federal Petroleum Co. and No. 1 on the Pacific Coast Division Oil Co., are expected to be spudded in during the next few days. The California Western Oil Co. and the Calmay Oil Co. are expected to begin making hole a little later on. The California Western has been delayed because of water trouble which developed in No. 11 in the Round Mountain Field and the crew has not been available to start work at Mount Poso. Shell has cemented No. 6 Security in the Mount Poso Field and this well, which made 1,449 feet of hole in seven days, should be finished during the coming week. The Chanslor-Canfield Midway Oil Co. has spudded in No. 6 in the Round Mountain Field and normal progress has been recorded during the past several days. The Standard has suspended drilling operations on No. 1 Mascot, and this project, the deepest test to be drilled in the Midway-Sunset Field, will probably be allowed to stand idle for an indefinite period. The Powell-Stockton Investment Co. failed to get commercial production in No. 1 Baier in the Fruitvale Field of Kern County and has suspended operations at 4,405 feet. Western Gulf resumed operations in this field a week or so ago but is confining its drilling operations to the drilling of No. 1 Simpson, which is down 2,500 feet. In the Gould Hills area of Kern County, Tom H. Purman recemented his deep test to stop the flow of oil between the strings of casing. This operation required 135 sacks of cement but appears to have been effective. Milham Exploration Co. spudded in a new well in the Buttonwillow gas field of Kern County early in the week, and this project, No. 3 Whitaker, should be listed as an early completion.

Kansas Fields

(Continued from Page 44)

Eaton (twin), NE cor. Section 26-19-2w, was completed for 530 bbls. of oil and 30 bbls. of water from 2,965-3,030 feet. Spencer and others' No. 2 Neufeldt, SW cor. SE SE Section 16-21-3w, an old well drilling deeper, was completed for 2,400 bbls. from 3,030-78 feet. Libernack and others' No. 1 Kauffman, NW cor. Section 22-21-3w, is a location.

Sedgwick County

J. J. Alyward and others' No. 1 Boyer, SE cor. SW SW Section 11-26-2, is a rig.

U.P.P.I. IS DISSOLVED

At the annual meeting held in New York City by the unanimous vote of its members, the Underground Pipe Protection Institute has been dissolved. Formed in 1929 by the leading manufacturers of pipe protection materials, the institute was organized as a nonprofit group to co-operate with the American Petroleum Institute and the Bureau of Standards in the three-cornered tests of pipe protection materials and methods. Subsequently, the U.P.P.I. functioned with the American Gas Association in its studies of pipe protection.

HEAT TRANSMISSION

A new book by Prof. W. H. McAdams, "Heat Transmission," has been announced by the McGraw-Hill Book Co., 330 West Forty-second Street, New York ($5), which will be found of service to designing and practicing engineers. There are 10 chapters of 388 pages, but the subject is treated in three sections. Under conduction thermal conductivities, the effect of the shape of bodies, resistance, heating and cooling of solids are considered. Radiation between solids, flames and general furnace design are treated in the second section. The third section discusses dimensional similarity, fluid dynamics, individual coefficients of heat transfer, heat exchangers, condensation and evaporation.

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
Standard, No. 1 Santa Rosa Island, Santa Barbara Co.	unsurveyed	6,241	hd. sd. drilling
Meganos Oil Co., No. 1 Lompoc, Santa Barbara Co.	28- 8-34	....	material
Smith, E. W., No. 1 Purisima, Santa Barbara Co.	16- 7-34	1,471	suspended
Duell, O. S., No. 1 Naples, Santa Barbara Co.	7- 4-29	5,132	suspended
Equity Oil Co., No. 1 Coal Oil Point, Santa Barbara Co.	24- 4-29	3,750	suspended
Bolsa Chica, No. 1 Coal Oil Point, Santa Barbara Co.	25- 4-29	4,089	suspended
Cuyama Oil Co., No. 1 Cuyama, Santa Barbara Co.	13-10-27	3,387	sd. sh. drilling
Woodrow Pet., No. 1 Rincon, Ventura Co.	4- 3-24	6,371	cleaning out
Indian Pet., No. 1 Rincon, Ventura Co.	tideland	2,115	prod. test
Commander Oil Co., No. 1 Fillmore, Ventura Co.	13- 4-19	2,264	suspended
Hancock Oil Co., No. 1 Fillmore, Ventura Co.	13- 4-19	1,332	sd. sh. drilling
Honolulu Consolidated, No. 1 Miguelito, Ventura Co.	23- 3-24	4,408	sd. sh. drilling
Continental, No. 3 Miguelito, Ventura Co.	23- 3-24	....	build. road
C.C.M.O., No. 3-A Miguelito, Ventura Co.	23- 3-24	....	material
Macrate, A. N., No. 1 Ojai, Ventura Co.	27- 4-23	1,301	sd. sh. drilling
Wilshire Oil Co., No. 1 Sulphur Mountain, Ventura Co.	26- 4-21	1,593	br. sh. drilling
Mosher, J. W., No. 1 Santa Paula, Ventura Co.	32- 4-21	816	cemented
Hardison & Temple, No. 1 Timber Canyon, Ventura Co.	32- 4-21	248	suspended
Petro Producing Co., No. 1 Timber Canyon, Ventura Co.	18- 4-20	2,483	suspended
Wilshire Oil Co., No. 1 Barksdale, Ventura Co.	13- 3-20	939	cleaning out
International Oil Developers, No. 1 Conejo, Ventura Co.	33- 2-20	2,565	hd. sd. drilling
Anderson, C. L., No. 1 Santa Susana, Ventura Co.	36- 3-18	300	sd. sh. drilling
Milham Exploration, No. 23 Buttonwillow, Kern Co.	4-28-22	1,012	sd. sh. drilling
Purman, T. H., No. 1 Gould Hills, Kern Co.	32-29-21	5,399	recemented
Purman, T. H., No. 2 Gould Hills, Kern Co.	27-29-21	293	sd. sh. drilling
General Pet., No. 1 Belridge, Kern Co.	36-28-21	8,260	suspended
Cumberland Oil Co., No. 2 Devil's Den, Kern Co.	17-26-18	3,270	suspended
Hollaway, A. S., No. 1 Devil's Den, Kern Co.	11-25-19	1,701	br. sh. drilling
Hanna, Tom, No. 1 Devil's Den, Kern Co.	25-26-18	3,516	suspended
Pyramid Hills Oil Co., No. 1 Devil's Den, Kern Co.	24-25-18	2,812	sd. sh. drilling
Fowler, F., No. 1 Blackwell Corner, Kern Co.	15-26-19	3,170	suspended
Ohio Oil Co., No. 1 Belridge, Kern Co.	36-27-20	8,314	deep test
Associated, No. 1 Lost Hills, Kern Co.	2-26-20	1,994	drlg. out cmt.
Seminole Oil Co., No. 1 Lost Hills, Kern Co.	29-25-21	....	material
Kingsburg Expl. Co., No. 1 Kingsburg, Fresno Co.	30-16-23	2,970	suspended
Bergman, Harry, No. 1 Kingsburg, Fresno Co.	12-12-11	391	suspended
Graham & Loftus, No. 1 Raisin City, Fresno Co.	20-15-18	3,077	sd. sh. drilling
Emerich Oil Co., No. 1 Mendota, Fresno Co.	35-13-13	....	material
Kent & McDonald, No. 1 Carriso Plains, S. Luis Obispo Co.	3-32-22	2,815	suspended
Emerich Oil Co., No. 1 Carriso Plains, S. Luis Obispo Co.	22-32-22	1,841	suspended
Texas Pacific Oil Co., No. 1 Edna, San Luis Obispo Co.	25-32-14	3,945	cemented
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,191	suspended
Shell, No. 1 San Miguel, San Luis Obispo Co.	4-25-12	4,713	sd. sh. drilling
Pacific Inland, well No. 1, Monterey Co.	19-23-15	2,441	suspended
Thomas Pet., No. 1 Parkfield, Monterey Co.	31-22-14	1,011	sd. sh. drilling
Guess, E. B., No. 1 Corcoran, Kings Co.	7-21-21	6,197	suspended
Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co.	9-22-20	3,012	suspended
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	36-23-17	6,302	br. sh. drilling
Kettleman Ridge Oil Co., No. 1 Avenal, Kings Co.	10-23-16	rig	suspended
Magee & Stone, No. 1 Alpaugh, Kings Co.	34-24-22	5,060	suspended
Ducor Pet. Co., No. 1 Ducor, Tulare Co.	14-24-27	2,200	suspended
Inland Valley Oil Co., No. 1 Visalia, Tulare Co.	24-17-24	2,092	suspended
Ellis & Sanford, No. 1 Tulare Lake, Tulare Co.	30-24-23	1,490	suspended
Napa Oil Co., No. 1 Griffith, Napa Co.	7- 8- 3	3,278	suspended
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	5- 2-10	4,513	suspended
Rushing Oil Co., No. 1 Waterford, Stanislaus Co.	30- 3-12	2,853	sd. sh. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo County	33-12- 3	3,945	suspended
Buttes Oilfields Co., No. 1 Maryaville, Sutter Co.	35-16- 1	2,568	sd. sh. drilling
Tehama Pet. Co., well No. 1, Tehama Co.	4-22-15	1,612	hd. sd. drilling
Orland Syndicate, No. 1 Orland, Tehama Co.	31-23- 3	3,400	suspended

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
Hines Pet., No. 1 Ocean Park, Los Angeles Co.	8- 2-15	7,414	suspended
Taylor Oil Co., No. 1 Culver, Los Angeles Co.	12- 2-15	6,238	suspended
Palm Ridge Oil Co., No. 1 Palms, Los Angeles Co.	2- 2-15	3,401	suspended
Williams Oil Co., No. 1 Moneta, Los Angeles Co.	23- 3-14	rig	suspended
Pan Tex Oil Co., No. 1 Lawndale, Los Angeles Co.	20- 3-14	171	sd. drilling
Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co.	7- 2-14	5,863	suspended
Kupfer, A. M., No. 1 Inglewood, Los Angeles Co.	17- 2-14	4,090	suspended
Stephens, J. J., No. 1 Athens, Los Angeles Co.	19- 3-13	4,635	cleaning out
Pacific Oil Inv. Co., No. 1 Wilmington, Los Angeles Co.	28- 4-13	3,614	suspended
Wilmington Oil Co., No. 1 Wilmington, Los Angeles Co.	28- 4-13	330	cemented
Jones, W. L., No. 1 Lynwood, Los Angeles Co.	31- 2-12	4,480	suspended
Hutcheson & Andrus, No. 1 El Monte, Los Angeles Co.	13- 1-11	1,397	suspended
Sanbar Pet., No. 1 Saugus, Los Angeles Co.	35- 5-16	1,100	hd. sd. drilling
Smith, J. A., No. 1 Saugus, Los Angeles Co.	32- 5-17	3,515	suspended
Alexander, W. L., No. 1 Newhall, Los Angeles Co.	1- 3-16	501	suspended
Garliepp, F. J., No. 1 Newhall, Los Angeles Co.	14- 3-16	393	sd. sh. drilling
Ball, W. T., No. 1 Newhall, Los Angeles Co.	34- 3-16	3,582	suspended
Big Four Oil Co., No. 1 Newhall, Los Angeles Co.	32- 4-16	1,407	sd. sh. drilling
Marble, Willard, No. 1 Van Nuys, Los Angeles Co.	6- 2-16	1,598	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29- 6-10	2,711	sd. sh. drilling
Mineral Exploration, No. 1 Capistrano, Orange Co.	8- 8- 7	4,283	suspended
Orangethorpe Pet., No. 1 Brea, Orange Co.	32- 3-10	4,560	suspended
Spindletop Oil Co., No. 1 Salton Sea, Riverside Co.	25- 7-10	3,590	suspended
Keeley, H. J., No. 1 Corona, Riverside Co.	21- 4- 6	rig	suspended
Duncan, N. L, No. 1 Sagebrush, Riverside Co.	8- 4- 6	1,157	suspended
Colan Dev. Co., No. 1 Redlands, San Bernardino Co.	25- 1- 2	2,392	suspended
Great American Pet., No. 1 Chino, San Bernardino Co.	18- 2- 8	1,509	rebuild. rig
Mason Oil Co., No. 1 Salton Sea, Imperial Co.	1-17-15	680	suspended
Woods, D. H., No. 1 Salton Sea, Imperial Co.	7-11-16	774	suspended

Fewer Completions in the Central West Fields; Five Wells Are Reported From Kentucky

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Feb. 6.—In the Lima Field of northwestern Ohio, Jones Oil Co.'s No. 1 on the Valentine Scherer farm, Section 35, Spencer Township, Allen County, produced an initial of 7 bbls. In Bath Township, same county, C. S. June abandoned No. 11 on the Hoover & Shermer farm, Section 29, and C. S. Apple abandoned No. 3 on the Jacob Leedy farm.

In Mercer County, Stelzer & McClure abandoned Nos. 9 and 10 on the J. A. Tingley farm, Section 7, Union Township. Henry Langenkamp is drilling No. 3 on his own farm, Section 19, Granville Township, same county.

Three wells are drilling in Auglaize County. Adrian Tester Oil Co. is drilling No. 4 on the Harry J. Hanold farm, Section 4, Moulton Township. C. Wintzer is drilling on the C. Wintzer farm, Section 28, Douchouquet Township, and in Noble Township, N. E. Masters and others are drilling No. 2 on the George Rable farm, Section 11.

The test that has been started by Lewis and Ennis Oil & Gas Co. on the E. E. Brown farm, Sections 20 and 30, Grand Prairie Township, Marion County, will be watched with interest, being far in advance of any known production of oil or gas.

Only two wells are under way in Wood County. Mary V. Conzen is drilling on the C. E. Mercer farm, in Section 14, Liberty Township, and if it proves a commercial producer it will mean further operations, and the same applies to the test being drilled by Pember & Raydure on the R. and E. Wagner farm, Section 27, Jackson Township.

CENTRAL OHIO

With all the wells under way in the Central Ohio Field, but five were completed, three being gas wells and two dry holes. In Starke County, Lawrence Township, McClay Brothers' test on the E. and M. Luthia farm, Section 23, was dry in the Clinton lime at a total depth of 4,052 feet. In Plain Township, same county, the Brendel Producing Co. brought in a light gas well on the S. and R. Givler farm, Section 27, drilled to a total depth of 4,519 feet and in the Clinton. East Ohio Gas Co. brought in a gas well in No. 4 on the John Strouble farm, Section 23, Jackson Township, same county, at a total depth of 4,477 feet. Cable and others are drilling on the O. Clovis farm, Section 25, same township, and the Fulton Oil & Gas Co. is drilling No. 5 on the Henry C. Rudy farm, Section 6, same township.

In Athens County, I. C. Robinson abandoned his location for No. 4 on the Amy J. Lucas and others farm, Section 16, Rome Township. Same party has a fishing job in No. 3 on the Alvin Cline farm, Section 13, Lee Township, same county.

In Meigs County, French & Jones drilled in a dry hole in No. 3 on the Morton French farm, Section 8, Scipio Township, at 854 feet, and has abandoned the hole. Delong and others drilled in a light gas well on the Mary E. Tracy farm, Section 33, Salisbury Township, same county, in the Maxon sand at 1,022 feet, Star Mills Co. is shut down at its second test on the Rena E. Karr farm, Section 11, Sutton Township, same county, at a depth of 391 feet.

In the Cleveland Field, Dillon & McFredrick are drilling around 1,000 feet on the Lizzie Kulous farm, Section 11, Strongville Township, Cuyahoga County.

Wittmer Oil & Gas Co. is shut down for casing on the E. and E. Stover farm, Lot 46, Bristol Township, Trumbull County, at a depth of 3,460 feet.

Mehowa Oil & Gas Co. is reported drilling around 2,500 feet on the Benjamine Ulrich farm, Section 20, Hardy Township, Holmes County.

In Guernsey County, McLaughlin and others are drilling a second test on the William H. Dike farm, Section 9, Adams Township, and Jewell and others are drilling on the Nathan Bay farm, Section 35, Oxford Township, same county.

Wittmer Oil & Gas Co. topped the Niagara lime formation at 2,610 feet on the Jamima E. Miller farm, Section 11, Washington Township, Muskingum County, and is at a total depth of 2,640 feet.

Wehrle Gas Co. is drilling a second test on the James M. Iches farm, in Section 32, Hopewell Township, Licking County.

INDIANA

Three completions were reported from the Indiana fields, one being a gas well and two dry holes. The gas well was drilled by the Knightstown Natural Gas Co., on the Mary A. Reed farm, in Henry County. In Orange County, C. W. Reichard's test on the Fred A. Cleveland farm, in the NE Section 30, Orangeville Township, was dry at around 1,850 feet. The Southern Development Co.'s test on the Ira North lot, in the hamlet of Rising Sun, in Ohio County, was dry in the upper Trenton formation.

There are a number of wells nearing the pay in several counties, such as Vanderburg, Gibson, Pike, Spencer and Perry Counties.

J. L. Rosen is drilling on the Neal S. Williams farm, Section 26, Gillam Township, Jasper County. This is a shallow natural lubricating oil and used by many people in that part of the State for en-

(Continued on Next Page)

Completions Maintain Rate in Eastern Fields; Ten of 12 Reported Were Gas Wells

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Feb. 6.—Completions maintained an even pace in the three districts of the lower eastern fields with 12 wells reported, 10 of which were gassers. In addition, one test proved dry. The most active parts of these fields, at the present time, lie in gas areas, chiefly a renewed activity in Calhoun County, and a continued fair activity in Cabell County, and Lincoln County, West Virginia.

SOUTHEAST OHIO

Work in Southeast Ohio is unusually dull, with but 21 wells drilling. During the week three wells were completed and all were gassers. In Noble County the Scott Oil & Gas Co. completed a test on the Friend Rohrer farm, NW Section 21. Elk Township. It is a shallow well in the Germantown sand, a depth of 808 feet, and will make a small gas well.

In Vinton County two new tests brought in fair wells, probably forerunners of others. On the E. Hexembaugh farm, near New Plymouth, Section 36, Brown Township, the Ohio Fuel Gas Co. completed a test in the grit at a depth of 997 feet. It is showing for over 500,000 feet a day. In the same township, but Section 30, the Kachelmacher estate completed a test on the Murphy Brothers farm of 30 acres. It reached the grit at 988 feet and gauged in excess of 600,000 feet a day.

The test of Benedum & Trees and others on the E. E. Knowlton farm, Section 10, Independence Township, Washington County, was again delayed in reaching the sand, this time with a lost bailer, which has been recovered. No hole was made during the week, the depth remaining a little over 7,000 feet, and the Clinton estimated at 150 feet lower.

WEST VIRGINIA

Six gas wells and one small producer sums up the work in West Virginia during the week. The producer was the test of the Virginian Gasoline & Oil Corp. on the Edward Reynolds farm in DeKalb district, Gilmer County. It was completed in the Maxon sand at a depth of 1,959 feet and will make a light pumper. This is close to the one fair well in the section, on the Engle heirs farm, all other offsets proving very small.

Of the gas wells completed the largest is in Mannington district, Marion County, where the Hope Natural Gas Co. completed drilling deeper its No. 6,794 on the Nancy L. Murray farm. The Pittsburgh Coal was placed at 948 feet, the top of the 30-foot sand at 2,955 feet. Gas was struck at 2,955 feet, which showed in excess of 3,500,000 feet a day, and caught fire. Completion was made at 2,975 feet.

In Cabell County another test was completed in Guyandotte district. C. C. Wolfe and others completed their No. 1 on the Calhoun and Justice lease in the Brown shale at 3,200 feet. It is rated for about 300,000 feet a day.

In Calhoun County the McCall Drilling Co. completed a test on the Nicholas Poling farm in Sherman district. It is a fair gas well in the Injun sand at a depth of 2,250 feet. In Gilmer County the same operators completed No. 7 on the Fletcher H. Stout farm in Center district. It is also a gas well from the Injun sand at a depth of 1,900 feet.

In Chapmansville district, Logan County, the Cumberland Petroleum Co. completed No. 8 on the Merrill Coal Co. lease. It was drilled in the Gas sand at a depth of 1,442 feet and will make a very light gas well.

In Roane County another fair test was completed. There the Reedy Oil & Gas Co. completed a test on the M. L. Santee farm in Curtis district at a depth of 1,770 feet in the Salt sand. It is showing for 750,000 feet a day.

The test reported a week ago in Wetzel County, the Shimwell Oil & Gas Co. on the W. J. Price farm in Grant district continues uncompleted with the bailer making about 3 bbls. a day, and a fair fluid level remaining in the hole.

Drilling in West Virginia

In Boone County but two wells are drilling. In Sherman district, the Pure Oil Co. has No. 59 drilling on the prolific lease of the Federal Coal Co. It is 2,115 feet deep. In Scott district, the Cambridge Gas Co. is down 2,350 feet in No. 4 on the C. C. Lewis heirs farm.

In Cabell County seven wells are drilling. In Guyandotte district the Huffman Oil & Gas Co. has reached 2,200 feet on the Darnell and Johnson lease. The Cisco Drilling Co. is down 2,030 feet on the Ed Bull farm, same district. Swanson and Hatchard have made fair progress in an unreported test on the F. M. McCoach & Co. lot, the depth now being 1,275 feet. The Northpole Ice Co. is drilling at 1,700 feet on its own property. The Midway City Gas Co. in a test on the C. L. Ritter lease has reached 1,410 feet. All these are in Guyandotte district. In McComas district, D. R. Campbell and others are down 1,700 feet on the Gilbert Holton farm.

In Calhoun County a new test spudding in is in Sheridan district, that of W. T. and O. L. Yoke on the A. T. Yoke farm. In the same district Ira Haught and others are drilling at 750 feet in a second test on the Alva Elder farm. In Sherman district H. B. Scott is ready with a rig on the Board of Education lot. Creed Barker and others have reached 900 feet in a second test on the H. Johnson farm, and have material on the ground on the I. B. Fowler farm. In Center district, W. H. Bickel is ready with a rig for a second test on the George D. Starkey farm.

In Gilmer County Poling and McDonald have resumed drilling in their test on the Miles Snyder farm in DeKalb district and have reached 870 feet. Other work has been suspended following the failure of the Maxon sand tests.

In Lincoln County Pridemore and Adkins are drilling on the Lonnie C. Egnor farm in Jefferson district, and have reached 700 feet. In Sheridan district the B.C.K. Gas Co. is down 1,450 feet on the M. H. Johnson farm. In Duval district, the Cambridge Gas Co. is drilling a second test on the Charles Harless heirs farm and has reached 1,125 feet.

In Logan County the West Virginia Gas Co.'s No. 37 is down to 1,600 feet and shut down on the Guyan Valley Mercury Co. lease in Logan district. In Chapmansville district, Roberts and Jarrett are drilling on the Hubert Ferrall farm.

No new work is noted in Marion County, nor in Monongalia County. Kanawha County remains inactive, with one deep test drilling, that of the Guthrie Oil & Gas Co. on the Virgil C. Tate farm in Union district which is down

to 4,850 feet and shut down. Pleasants County is likewise quiet.

In Ritchie County the Bode-Stoffle Drilling Co. is down 1,450 feet on the John Coyle farm in Murphy district. In Clay district the Lucky Strike Oil Co. has its second test on the L. E. Robinson farm down to 600 feet. In Grant district J. G. Charter has a rig standing on the A. F. Daubenspeck farm.

In Roane County two tests are drilling. In Geary district the Tawney Oil & Gas Co. is drilling at 300 feet on the D. L. Tawney farm, and the Big Sandy Oil & Gas Co. has reached 500 feet in a second test on the T. F. Smith farm. A rig is standing on the Charles Starcher farm in Smithfield district by Charles Despard and others.

Tyler County is again quiet. In Wetzel County, the Manufacturers Light & Heat Co. is about due in with No. 3 on the Caleb B. Freeland farm in Church district, which has reached 3,290 feet. In the same district, the State Line Oil & Gas Co. has shut down on the C. W. Kirkhart farm after reaching 3,250 feet.

Wirt County has but little new work. The same is true of Wood County after a temporary spurt. In Wayne County, the Burgess Oil & Gas Co. is drilling at 1,303 feet on the Robert Vaughn farm in Union district. The test of the South West Virginia Gas Co. on the A. W. Preston farm is shut down at 1,450 feet.

SOUTHWEST PENNSYLVANIA

The week in Southwest Pennsylvania produced two completions and a dry hole. A very fair test was in Adams Township, Butler County, where Samuel Parks completed a producer in the 100-Foot sand at a depth of 1,467 feet, on the Joseph C. Trees farm. It started off at 20 bbls. a day.

In Allegheny County M. C. Rodgers drilled a second test on the Grace W. Wolf farm in Harmar Township. It went through the sands to a depth of 1,930 feet and is void of production.

In Greene County Johnson and Eddy completed a second test on the Frank Roberts farm in Gilmore Township. It is a gas well from a stray sand at a depth of 3,422 feet showing for close to 300,000 feet a day.

Central West Fields

(Continued from Preceding Page)

gine oil in their automobiles. An English syndicate early in the nineties drilled close around 500 shallow wells.

ILLINOIS

Only a few wells are underway in the Illinois Field. In Clark County, J. E. Hood is due to complete No. 8 on the H. Briscoe No. 2 farm, Section 32, Parker Township, and so is Martha Knierim's No. 8 on the N. B. Lee farm, same section. Walter Cline is also nearing the shallow pay sand on the A. D. Hildreth farm, Section 27, Lafayette Township, Coles County.

Price & Weger are drilling No. 1 H. Standfield farm, Section 36, Prairie Township, Crawford County, and Warner Brothers are shut down on the Grant Jessup farm, Section 23, Honey Creek Township, same county.

KENTUCKY

Five wells were reported completed in the Owensboro Field of western Kentucky, one being a producer and four dry holes. The producing well was drilled by the Olean Petroleum Co., in No. 4 on the J. T. Crowe east 60 acres, in the Crow Hill Pool, in Hancock County, with an initial of 20 bbls. at a total depth of 358 feet.

In Ohio County, H. L. Ogle and others' second test on the J. J. Miller 50 acres, three-quarters of a mile east of the hamlet of Deanfield, was dry at a total depth of 350 feet.

In Daviess County, the Three Sands Oil Co.'s test on the Milton heirs' farm, one-half mile east of Utica, struck salt water at a total depth of 1,554 feet and will be abandoned dry. A. D. Schaffer is drilling on the B. W. Bristow farm, same area. Sands Petroleum Corp. is drilling a second test in the Jones Pool.

In McLean County, the Whitmer Oil & Gas Co.'s No. 1 on the B. L. Stevens farm, 2 miles northeast of the town of Livermore, was dry. Johnson Oil & Refining Co.'s test, 800 feet from the south line and 400 feet from the east line of the Orville Hicks farm, 1½ miles west of Livermore, was reported dry at a depth of 1,600 feet.

In Hart County, unknown parties in drilling on the Mary Dale farm, along the Dixie Highway, 2 miles north of Horse Cave, struck 2,000,000 feet of gas at a depth of 530 feet. Drilling is continuing below 600 feet in hopes of finding oil.

Owensboro Wants Refinery

Prospects of a refinery being established near Owensboro were discussed at a meeting of the Owensboro division of the Kentucky Oil and Gas Association, attended by approximately 50 members. The Messenger-Enquirer says:

"It was reported that an offer has been received from a reputable firm to erect a refinery in the Owensboro Field if it can be assured of receiving at least 1,500 bbls. of oil a day. The refinery would post a 10-cent premium for oil, it was said. Details of the proposition are to be further considered by the operators, who are generally anxious to secure a refinery which would provide an added market for the production in the Owensboro Field. The name of the company considering a refinery location was not divulged by the association. A proposal to curtail the production of the Owensboro Field as a result of the recent reductions in price, the present quotation being 57 cents a barrel, was discussed. A decision was reached that no concerted effort should be made to stop pumping of oil in the entire field but that operators in each of the several pools in the field should handle the problem as they see fit in their own areas."

Four Completions in the Michigan Field; Deeper Drilling in Vernon District

By GEORGE A. WHITNEY

MOUNT PLEASANT, Mich., Feb. 6.—Four completions were reported in Central Michigan, the best being Pure Oil Co.'s No. 2, 330 feet from the north and west lines of the P. Reimenschnider farm, in the NW SW Section 15, Greendale Township, Midland County, which produced an initial of 245 bbls. from the Dundee formation. In Chippewa Township, Isabella County, C. Fred White and others' test in the southeast corner of the W. A. Dennis and others' farm, in the SE SE NW Section 3, produced 25 bbls. initially.

In Clare County, Greenwood Township, the Theodore Oil Co.'s test on the Thompson Brothers' farm, near Farwell, in the SE SW NE Section 35, was reported dry at a total depth of 4,185 feet.

In Gratiot County, the Shell Petroleum Corp. is reported to have failed to find gas in a test 660 feet from the north and west lines of the Aubrey Mellinger farm, in the C NW SW Section 9, North Star Township, which has been abandoned at 1,196 feet. Same company is drilling 660 feet from the south and east lines of the J. Covell farm, in the C SE NW Section 15, Seville Township, same county.

Pure Oil Co.'s No. 2, on the Mary Jacobs farm, Section 9, Greendale Township, Midland County, after being given an acid test, produced between 45 and 50 bbls.

Two wells are nearing completion, Talbot Oil Co.'s No. 3-B, 330 feet from the south line and 990 feet from the west line of State of Michigan land, in the SW SE SE Section 11, Greendale Township, Midland County, and Jones-Woodruff's No. 3, 990 feet from the south and east lines of the Jones-Woodruff farm, in the NW SE NW Section 13, same township.

Takes Over Property

The Roosevelt Oil Co. has taken over the development and production of McClanahan, Inc., in the Central Michigan Field, according to an announcement by officials of both concerns. The Roosevelt refinery will purchase all of the McClanahan, Inc., crude. The new plan of operation leaves the McClanahan, Inc., development company intact and it will continue to operate with Walter L. McClanahan as president. Roosevelt Oil Co. will manage and direct operations under the terms of the contract. Harry Lantz has been employed as production superintendent and it is believed the wells on the McClanahan lease can be stepped up. Other wells also may be drilled.

Production Increased

Back in September 29, 1931, the Mellon-Pollock Oil Co. brought in No. 1 on the Brief farm, Section 22, Vernon Township, Isabella County, with an initial production of 750 bbls., and dropped to 45 bbls. a day under pump. Owners concluded to drill the well deeper and in doing so found a lower pay formation, where a nice increase was found with a flow of 700 bbls. and this will bring about deeper drilling in the Vernon Field. The Mammoth Petroleum Corp.'s No. 1 on the Schugg farm, in the same area, drilled in a couple of years ago, with an initial of 800 bbls., will be drilled into the second pay sand. The Vernon Field was opened in April, 1930, when No. 1 on the Bowman farm, produced 75 bbls., followed by No. 1 on the Woods farm, drilled by George Talbot, which had an initial of 2,400 bbls., by far the largest producer in the Vernon Field. This area will be closely looked after as soon as the spring season opens. The field has produced a large amount of oil during the past three years.

Field Notes

The Strange Oil & Gas Co., in a test 300 feet from the south line and 990 feet from the west line of the J. L. Littlefield farm, in the SE SW SW Section 9, Surray Township, failed to strike a commercial gas well in the Marshall formation and is now drilling to the Dundee. If this well is a producer it will have a great bearing on developments and drilling to the northwest of the Mount Pleasant and Vernon Fields.

Four drilling permits were issued: To the Craig-Smith Oil & Gas Co., for No. 1, 330 feet from the south and west lines of the William Bender farm, in the N half SE SW and S half NE SW Section 21, Birch Run Township, Saginaw County; to James M. Taggart and others for a test, 1,070 feet from the south line and 400 feet from the west line of the property, in the NW SW SW Section 11, Austin Township, Mecota County; to the Columbia Oil & Gas Co. for a test 330 feet from the north line and 165 feet from the east line of the quarter section, and in the NE SE SW Section 15, Greendale Township, Midland County; to Otis Denslow for a test 330 feet from the south and west lines of the Herman Cook farm, in the S half NE Section 2, Broomfield Township, Isabella County, the latter being in the Broomfield gas area and about a mile to the east and north of the good gas wells on the Keeler-Mitchell farm.

T. K. Buzzard is drilling a test 990 feet from the south and west lines of the Frank A. Trout and others' farm, in the NE SW SW Section 7, Denver Township, Isabella County. Old Dutch Oil & Gas Co. is drilling 660 feet from the north and east lines of the Hugh and Kate McGuire farm, in the E half SE Section 35, Vernon Township, same county.

Gulf Coast Fields

(Continued from Page 46)

of the deep sand made several weeks ago the well failed to produce although it showed considerable gas and some distillate. Two other wildcats are drilling in this county, these being Herman Heep's No. 1 Dayvault, William Kincheloe Survey, down 4,600 feet, and Pure Oil Co.'s No. 1 Stewart, Morris & Cummings Survey, Section 25, down 3,200 feet.

Matagorda County

The past week wrote the end to the deep test Humble Oil & Refining Co. has been drilling on its geophysical prospect several miles southwest of Pledger in Matagorda County. The test, No. 1 Pierce Estate, Isaac Foster Survey, was dry and abandoned at 7,323 feet. The location is approximately 7 miles to the west of Danciger Oil & Refining Co.'s Cedar Break (Pledger) Field where that company recently completed a deep high pressure gas well. Humble's prospect is owned jointly with Gulf Production Co.

Austin County

The wildcat elimination process also hit Bunte and associates' No. 1 Dittert, a much watched wildcat in the M. N. Allen Survey, 4 miles south of Bellville in Austin County. This test was quit as dry at 4,850 feet. The log checked about normal.

Vermillion Parish

Pure Oil Co. has abandoned its No. 3 Alliance Trust Co., located in its Gueydan Field, Vermillion Parish, Louisiana. It was quit in anhydrite at 4,771-4,810 feet. The same company's No. 2 Mulvey, also located at Gueydan, is in sand showing oil. The sand was topped at 4,387 feet and at 4,393 feet the test was coring deeper in it. Gueydan has two producing wells.

Polk-Liberty

Toner & Purdy's No. 1 Roberts, located in the Ace area in the DeRumayor Survey on the Polk-Liberty County line, is reported to have topped the Cockfield, the producing horizon of Conroe, at 5,020 feet, and is showing some oil. Bottom of the hole is 5,030 feet. Location is approximately 10 miles south of the Schwabb and Sunshine district in the A. Viesca Survey, southern Polk County, which now is one of the most watched districts on the coast.

OKLAHOMA-KANSAS

Pipe Line Statement for November Runs

Company—	Month (bbls.)	Dy av. (bbls.)
Gulf Pipe Line Co.	1,394,841	46,495
Texas Pipe Line Co.	572,064	19,069
Empire Pipe Line Co.	1,658,358	55,279
Magnolia Pipe Line Co.	932,843	31,095
Cosden Pipe Line Co.	587,888	19,596
Stanolind P. L. Co.	2,355,000	78,500
Oklahoma P. L. Co.	1,444,652	48,155
Other lines	5,237,040	174,568
Total November	14,182,686	472,756
Total October	14,790,546	477,915
Difference	607,860	5,159
Shipments		
Gulf Pipe Line Co.	1,910,260	63,675
Texas Pipe Line Co.	651,019	21,701
Empire P. L. Co.	1,641,437	54,715
Magnolia P. L. Co.	1,137,824	37,927
Cosden P. L. Co.	592,923	19,764
Stanolind P. L. Co.	3,301,140	110,038
Oklahoma P. L. Co.	1,818,057	60,602
Other lines	5,430,000	181,000
Total November	16,482,660	549,422
Total October	17,047,861	549,931
Difference	565,201	509
Stocks		
Sinclair Prairie Oil Co.*	23,585,000	
Gulf P. L. and Gypsy Oil Co.	6,612,109	
The Texas Company	2,407,940	
Empire Pipe Line Co.	4,610,823	
Mid-Continent Petroleum Corp.	2,270,978	
Stanolind Crude Oil Pur. Co.*	14,837,000	
Magnolia Petroleum Co.	7,524,088	
Oklahoma Pipe Line Co.	1,065,247	
Carter Oil Co.	3,572,515	
Other lines	16,612,715	
Total November	93,098,415	
Total October	93,771,915	
Difference	673,500	

*Estimated. Stanolind Pipe Line Co. shipments include Texas crude oil.

New Pool East of North Government Wells Pool; Gas Found in Two Wells on the West Side

By B. D. STEVENSON
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., Feb. 6.—Stanley Smith's (Smith & Hunter) No. 1 C. Pena in Survey No. 79 in northern Duval County, 7 miles east of the North Government Wells Pool, was completed the past week in sand at 1,910-31 feet for 30,000,000 feet of gas with 700 pounds on the tubing with the well open and flowing. This opens a new pool and on a different line of folding east of and parallel to that of the Government Wells group of pools and lining up with the Driscoll Pool 20 miles southwest of it. Smith & Hunter have made location for No. 1 Olivarez, 1,500 feet southeast of No. 1 Pena and are moving the rig, hoping to get oil in the new location.

This new pool and the gas in the two wells on the west side of the North Government Wells Field and a small well in the Magnolia Petroleum Co.'s No. 3 White on the east side of the North Government Wells Field helping to mark the limits are the most important happenings of the week in Southwest Texas outside of the Amerada getting sulphur water but finding the Edwards lime porous in No. 1 Oppenheimer in Frio County.

Edwin M. Jones' No. 1 Luptak in Survey No. 41 on the west edge of the North Government Wells Pool in sand at 2,252-84 feet and with casing set at 2,270 feet came in for 20,000,000 feet of gas but showed some oil at first and Violet Oil Co.'s (Burkner and Graham) No. 1 M. Webb, a quarter of a mile north of it, in sand at 2,236-70 feet and with casing set at 2,258 feet, came in for gas also at about 15,000,000 feet and with 700 pounds pressure on the tubing with the well flowing. There is a possibility that both these wells would turn to oil in time if allowed to flow. At any rate they give a line on the west side of the field.

Another feature is Brogan and others' (Buckner & Graham) No. 1 Miller, 1 mile due west of the Jones and Violet Oil Co. gassers. Exact depth has not been learned but in the same sand it showed considerable gas and some claim would have made a small gas well if completed. It has been abandoned.

On the east edge of the field Magnolia's No. 3 White in the northwest corner of Survey No. 64 came in for a pumper at 60 bbls. daily and evidently indicates eastern limits of the field. It is a south offset to one of the Byrd Oil Co. wells in Survey No. 101. Other completions in the field were not of particular interest.

The report came in late that Seacord's No. 1 Lundell in Survey No. 60, 1½ miles southwest of production in the North Government Wells Pool and a little over a quarter of a mile west of production in the original Government Wells Pool got salt water at 2,293 feet. It is about a half mile southwest of McGinley's No. 1 Lundell in Survey No. 48 that made a small oil well.

In Moca Pool—Webb County

Moca Oil Co.'s No. 2 test in Share 3 of Zapata County school lands in northeastern Webb County is a failure. It failed to get the sand producing in No. 1 at 909 feet, but got the Mirando sand at 1,736 to 1,836 feet, but carrying water. It was abandoned at 2,008 feet. The Mirando sand is producing in the S.R.C. Pool about 10 miles northeast and on the same general trend. The operators are encouraged in finding plenty of sand and some additional drilling will be done.

In the Laurel Pool completions the past week added nothing of particular importance. South Texas Oil Co.'s No. 10 Laurel in Survey No. 271, a north offset to the Magnolia's 800-bbl. well in Survey No. 1,100, came in for about the same amount and its No. 5 Laurel in Survey 270 came in for about 200 bbls. This test is one location south of No. 3 on Survey 270 that came in for an estimated 2,000 bbls. per day.

Frio County Wildcat

Amerada Petroleum Corp.'s No. 1 Halff & Oppenheimer, in Edwards at 6,302-6,312 feet, is a sulphur water well and is standing awaiting orders. Some geologists are putting great stress and importance in the fact that it found the Edwards porous and at that depth. Many have believed that the Edwards west of San Antonio and also down dip and away from the Balcones fault and at that depth would be hard and compact and furnish no reservoir for oil. Also the Edwards was found somewhat shallower in the Amerada test than some had estimated it would be found in that location.

The well is therefore creating considerable interest and discussion even though it is a sulphur water well. It will further seem to afford other wildcatters some encouragement to aim for the Edwards in the belt farther removed from the Balcones Fault, all along some 250 miles of territory, where the Edwards is found only at the expense of deep drilling.

There is some interest revived also in the Adair & Daniels test in Zavala County, 12 miles southwest of the Amerada test, which is standing at 3,920 feet. It topped the Navarro at 3,208 feet.

Dry Hole in Goliad County

Sam Vanderweiss' No. 1 Kaufman in Goliad County is dry and abandoned at 4,554 feet. It was the second effort to develop a pool discovered by F. P. Zoch's No. 1 Kaufman at 4,232 feet, about a half mile west. Vanderweiss got the sand but got it low and carrying salt water. The other test was drilled by Slick-Seeligson, Inc., 600 feet south of Zoch, and it also failed to get the pay. This probably closes the efforts around that test for a time.

Starr County

Jeffries-Lambeth Drilling Co. changed plans and instead of setting casing in No. 1 Starr County Cattle Co. on the north end of Porcion No. 89 to test the gas showing at 1,516-22 feet decided to drill ahead. It was practically certain to make a gas well, opening a new gas pool about 10 miles from any production, but there was no market for the gas. At last reports it was drilling at 1,680 feet.

B.&B. Oil Co.'s No. 1 Kelsey Bass, 4 miles southeast of Rio Grande City, is 8 miles southwest of the Jeffries-Lambeth test and it has been waiting for casing and waiting to ream down to make a test of a showing at 4,520-26 feet and two new wildcats are starting northeast of Jeffries-Lambeth test and in line with it and the B.&B. Oil Co. test.

Four-in-One Oil Syndicate (J. E. Waldron) spudded in No. 1 Marks estate, 200 feet southwest of the center of I.&G.N. Survey No. 483, about 5 miles northeast of Jeffries-Lambeth, and F. R. Cooper has spudded in No. 1 J. M. Martinez in A.B.&M. Survey No. 135, 150 feet from the south and east lines of the survey, 3 miles northeast of Waldron.

Also on the south end of Survey No. 89, southwest of Jeffries-Lambeth, Percy Brenton has spudded in with spudder to change later to bigger rig No. 1 Starr County Cattle Co., 150 feet north of Highway No. 4 and 150 feet from the west line of the Porcion.

Tests in Hidalgo County that have been standing for many months are being revived. Barrett-Kanellos' No. 1 Brock in northwestern Hidalgo County, since the middle of last year has been standing at 4,590 feet. It is to resume and go to 5,000 feet. Also Dayle L. Smith's No. 3 Daskam, standing for some time at 1,706 feet where it had a showing of gas, has set casing and is due to test. It set 8¼-inch and will drill deeper if it fails to make a producer. One new test has started in the county, Carl & Johnston's No. 1 Doughty, on the Indios ranch in the northern part of the county.

New Wildcatting

M. L. Howard has taken over Allen Park's No. 1 James Watson, a few miles south of San Antonio, which has been standing at 2,535 feet and is trying to plug back about 10 feet and make an Edwards lime producer out of it. It was drilled two or three years ago and showed some oil at the time but was never completed.

Fred Adams is to drill the next test in the McCrory area in Caldwell County on a tract out of the C. J. Webster Oil & Gas Co. block and a little southwest of C. J. Webster Oil & Gas Co.'s No. 1-A McCrory that made a producer in a crevice in the chalk at 2,080-86 feet and has recently been treated with acid with result that the production has been increased. Webster and D. V. Smith drilled No. 1 McMahon northeast of No. 1 McCrory which failed to be a producer but aided in furnishing some new geological information resulting in the new location.

A new location has been made at the north end of the North Government Wells Pool in Duval County by Navarro Oil Co. on Humble Oil & Refining Co. lease in Survey No. 360. The Humble owns the acreage on north for a mile and also for a mile east.

McMullen County

Some more wildcats have been added to the list in McMullen County following the play on north from the producing fields in Duval and Webb Counties. French Oil Corp. is moving on to drill on the Shiner ranch in McMullen 15 miles north of the south line of the county and due north of Buchanan, Schoolfield & Frasher's No. 1 Pusch in Survey No. 115, which survey is divided by the McMullen-Duval County line.

Gant and Teas are spudding in on No. 1 Hagist in Section 24 of H.&T.C. Railroad Survey, Block No. 5, about half way between French's No. 1 Shiner and the Pusch test on Survey No. 115.

Ten miles northeast of French's No. 1 Shiner, location has been made for Nixon & Greenwood's No. 1 G. A. Booth, 4 miles southwest of the Callihan Field.

Duval County

Five miles southwest of French the S.R.C. Oil Co. is drilling water well preparatory to spudding in No. 1 La Chusa in Section 47 of the A.B.&M. Survey and 12 miles southwest of that the same operators are moving in to drill No. 1 Hagist, 330 feet from the south and east lines of Survey No. 267 in the northern extremity of Duval County.

This test is about 1,250 feet southeast of Buchanan & Tyrrell and Frate's No. 1 Hagist in the same survey which made about a 10,000,000-foot gas well at 2,134-44 feet and was abandoned at 2,505 feet in August last year. The new S.R.C. location is on the old theory of getting down the dip to the southeast in the hope of getting an oil well.

Guadalupe County

J. W. Walton's No. 1 Dan Darling in Guadalupe County, about half way between the Darst Creek Field on the southwest and the Salt Flats or Bruner Field on the northeast stood at a little below 100 feet for weeks while waiting for clearing titles. Late last week at 2,892 feet it was in Georgetown topped at 2,853 feet, having made most of the hole in little more than a week and over the week-end should go into the Edwards lime. The depth was low compared to the two fields but a little high compared to some abandoned wildcats around it. Several major companies, including Sinclair Prairie, are interested in the deal.

Kleberg County

Harris and others' No. 1 Dennett, a little north of the Kingsville Field in Kleberg County, is waiting for drill stem at 2,797 feet where it is 4 feet in lime formation carrying water. This is practically the first attempt to pick up production in that part of the country since Humble Oil & Refining Co. developed a few producing oil wells, but found a large number of sands that carried more or less oil and gas showings. Texas-Kentucky's No. 1 Kleberg, about 1 mile west of Harris and others' No. 1 Dennett, drilled several years ago, in Block 38, got a good porous sand with quite a little oil and gas showing at 2,982 feet and Humble in some tests considerably south had a well that made quite a little production for a time at around about the same depth. This sand is the next objective of No. 1 Dennett.

Wildcat Operations in Southwest Texas

Week Ending February 4

ARANSAS COUNTY

Company, farm and location—	Remarks
F. E. Kestler's No. 1 McCampbell, 150 ft. from N and E lines of Lot 1, Blk. 58, McCampbell ranch	T.D. 4,145 ft; drlg.

ATASCOSA COUNTY

Jacob, Buzzini & Pickett's No. 1 Roundtree, 330 ft. from NE and SE lines of W½ of J. Pointevant Sur. 1.	Set surface csg.

BANDERA COUNTY

Van Winkle's No. 1 R. B. Watson, 600 ft. N of cen. of S line of Sec. 71	T.D. 400 ft; standing, showing gas; waiting for 10-in. csg.
E. A. Parkford's No. 1 Duke, 200 ft. from S line, 150 ft. from W line of Sec. 7, G.C.&S.F. Sur.	Comp. road and given 90 days' extension to Feb. 18.

BASTROP COUNTY

Champion's No. 1 Rivers, center W½ of 800-ac. tract in Osborne Sur.	T.D. 1,250 ft; drlg.
J. E. Emanuel's No. 1 H. Klemm, 817 ft. from W line, 200 ft. from S line of tract in R. S. Teal Sur	T.D. 263 ft; S.D.

(Continued on Page 60)

Test New Locations Northwest of Hobbs Pool; Weld County Test Shows Increased Gas

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Feb. 6.—Humble Oil & Refining Co.'s No. 3 Bowers, an outside well in the northeastern part of the Hobbs Pool, gauged 11,664 bbls. per day on a company test and Gypsy Oil Co.'s No. 2 Hardin, upon being regauged, made 9,202 bbls. Three new locations, all outside wells in the northern and northwestern parts of the field, were reported. Western Drilling Co.'s No. 1 State, 15 miles northwest of the Hobbs Pool, was abandoned at 5,216 feet. Continental Oil Co.'s big gasser in Jal Pool, after gauging 109,000,000 feet, picked up two more gas sands. The Texas Company's No. 1-B Lynch, one-half mile northwest of nearest producer in the Lea Pool, ran into sulphur water. One location, a test for sulphur, was reported in Eddy County.

Ramsey Petroleum Co.'s No. 1 St. Anthony, in Weld County, Colorado, after plugging back to the Muddy, is showing an increase in gas and gauged 3,000,000 feet and averaging 100 gallons of drip gasoline per day. Two new operations were reported in the Florence district in Fremont County.

In Wyoming one new operation is to start in Albany County, three wells were abandoned in Lincoln, Sublet and Uinta Counties, and The Texas Company's Alkali Butte test in Fremont County is drilling again after gauging 6,000,000 feet of gas. The Hamilton Dome Field again is on production. Continental Oil Co.'s No. 1 Northern Pacific, on the Frannie Dome, looks like a good producer.

In Montana the Ohio Oil Co.'s No. 11 Bowman, Dry Creek Dome, averaged 150 bbls. per day initial. One new location was reported in the Cut Bank Field and L. R. Hannah and others' No. 1 Britton swabbed 195 bbls. in 16 hours. One well was abandoned in Yellowstone County.

NEW MEXICO

Lea County

One completion was reported in the Hobbs Pool in Humble Oil & Refining Co.'s No. 3-B Bowers, SW SE SE Section 20-18-38, which gauged 11,664 bbls. of oil and 10,000,000 to 12,000,000 feet (estimated) of gas on a company test. It is waiting for proration gauging. Total depth is 4,225 feet. This is an outside well in the northeastern part of the field, one-fourth mile east of Atlantic's No. 1 Grimes, the nearest producer.

Gypsy Oil Co.'s No. 2 Hardin, SW SE SE Section 18-18-38, at the extreme north end of the pool, which last week was reported gauging 7,776 bbls. of oil and 8,000,000 feet of gas on a company test, was regauged and made 9,202 bbls. and 8,315,000 feet of gas, open, and 5,054 bbls. and 4,810,000 feet through the tubing.

Continental Oil Co.'s No. 7-B State, C SW NE Section 33-18-38, in the vicinity of some of the biggest oil and gas wells in the Hobbs Field, which last week was reported gauging 3,110 bbls. of oil and 70,300,000 feet of gas, open flow test, was experimented upon the past week in an effort to reduce the gas-oil ratio. A packer was set at 4,080 feet and in the first two hours it flowed open 35 bbls. of oil and approximately 800,000 feet of gas. It was then swabbed and after making 18 bbls. went dry. It is shut down waiting orders to raise the packer for further experimenting.

Stanolind Oil & Gas Co.'s No. 26 Turner, C SE SW Section 34-18-38, an outside well on the southeast, is still waiting for proration test.

Three new locations were made the past week, all outside wells in the northwestern part of the field. Drilling in that direction the past few months has resulted in some good producers and operations gradually are extending towards the northwest feeling out that direction. Skelly Oil Co.'s No. 1 State, C W half, SW SW Section 17-18-38, an offset on the east to Gypsy Oil Co.'s No. 2 Hardin, is digging cellar and pits. Continental Oil Co.'s No. 1-A State, NE cor. NW Section 25-18-37, is an offset on the west to The Texas Company's No. 4-C State. It will call for offsets by Shell Petroleum Corp. and Texas Pacific Coal & Oil Co. Humble Oil & Refining Co.'s No. 1 Hardin, SW cor. NW Section 18-18-38, is moving in materials. It is a half mile north of Amerada's No. 1 Hardin, and the farthest north location in the pool.

Other Operations

The Texas Company's No. 4-C State, NW cor. NE Section 25-18-37, cemented 9⅝-inch on bottom at 2,758 feet with 500 sacks and is waiting. It topped anhydrite at 1,540 feet and salt at 1,680 feet. Base of the salt was at 2,620 feet. Tidal Oil Co.'s No. 4 Hardin, SW NE NE Section 19-18-38, is drilling at 3,763 feet. It topped brown lime at 2,875 feet. Stanolind Oil & Gas Co.'s No. 26 Thorpe, C SE NW Section 10-19-38, in the southern part of the field, is waiting at a total depth of 3,590 feet after cementing caves at 1,576-1,805 feet. Same company's No. 29 State, C SW SE Section 4-19-38, spudded January 20, and is drilling at 870 feet. The 16-inch was cemented at 199 feet with 75 sacks. The Stanolind company's No. 8 Capps, C NW SW Section 3-19-38, spudded January 23 and cemented 16-inch at 204 feet with 75 sacks, and its No. 26 Byers, C SE NE Section 4-19-38, spudded January 21 and cemented 16-inch at 199 feet with 75 sacks.

In the Lovington area, the Western Drilling Co.'s No. 1 State, NE cor. SE Section 13-17-36, joint with Republic Producing Co., is being abandoned. This well tested the trend of the Hobbs Pool 15 miles to the northwest. Total depth was 5,222 feet, corrected back to 5,216 feet. It topped anhydrite at 1,955 feet and salt at 2,090 feet. Base of the salt was at 3,150 feet and top of the Bower sand at 4,145 feet. Water was encountered at 4,983 feet and fluid rose 3,100 feet in the hole. On the top of brown lime it was running about 500 feet deeper than at Hobbs.

In the Jal area, the Continental Oil Co.'s No. 1-B Sholes, C SW NW Section 13-25-36, an offset on the east to Humble's No. 1 Koonce, is coring at 3,330 feet. This well was tested at 5,153 feet and gauged 56,600,000 feet of gas and was again tested at 3,200 feet, gauging 109,000,000 feet. The gas was then mudded off and coring resumed. A test of sand at 3,218-50 feet gauged 13,000,000 feet of gas, but no oil, and another at 3,256-3,300 gauged 10,900,000 feet of gas without any oil. The only other operation in the Jal area is The Texas Company's No. 1-B Shepherd, NW cor. SW Section 5-26-37, which is digging cellar.

In the Eunice area the Atlantic Oil Producing Co.'s No. 1-B State, C NW SE Section 8-21-36, is building rig.

In the Lea area The Texas Company's No. 1-B Lynch, C SW NW Section 34-20-34, was a disappointment at 3,808 feet and is shut down for orders. At that depth sulphur water rose 1,200 feet in the hole the first two hours. There was a very small show of oil at 3,777-78 feet. It is one-half mile northwest of the company's No. 1 Beulah Lynch, which attracted attention to the Lea area in 1929 when it was completed at 3,731 feet for an average of 1,000 bbls. per day, and 3½ miles southeast of Henderson, Dexter & Blair's No. 1 McDonald & Jewett, which averaged around 60 bbls. per day when completed in 1929. The Texas Company's No. 2-A Lynch, C SE SE Section 34-20-34, between the Beulah Lynch and a group of producers in the Lea Pool, is drilling at 3,690 feet in white lime.

Eddy County

Pecos Valley Gas Co.'s No. 7 Vandagriff, SE NW SE Section 5-17-28, Artesia area, is bottomed at 1,261 feet and running 6⅝-inch. Flynn, Welch & Yates' No. 65 State, NE SE SE Section 30-18-28, topped the red sand at 1,470 feet and is drilling at 1,520 feet in gypsum and anhydrite. Leonard-Barnsdall's No. 1 Dodd, SW SE SW Section 22-17-29, is drilling at 1,655 feet and had a show of oil at 1,155-60 feet. Isaac Hanan and others' No. 1 State, NW cor. Section 32-18-31, is shut down after rigging up. R. Spearow and others' No. 1 McClellan, SW NW NE Section 22-22-23, Indian Creek, is drilling in black lime at 1,283 feet and still carrying 600 feet of water from 890 feet. Poole Oil & Gas Co.'s No. 1 State, SE cor. Section 16-22-27, is drilling at 1,238 feet. Finley, Woods & Brainard's No. 5 Brainard, C NW SW Section 5-18-27, Compton district, is preparing to resume at 1,300 feet after being idle for two months, and R. D. Compton's No. 4 Brainard, SE SE Section 5-18-27, is drilling at 1,292 feet in brown lime with 1,000 feet of fluid in the hole of which 600 feet is oil and 400 feet water.

E. B. Guess and others' No. 1 Pierson & Watson, NE cor. NW Section 8-16-25, is moving in for a sulphur test.

De Baca County

Landowners Oil Co.'s No. 1 State, SW cor. NE Section 16-1s-27, Buffalo Creek, is drilling at 5,519 feet in lime.

Chaves County

Warman Oil Trust's No. 1 Weldon & Hoar, NW cor. SE Section 9-14-25, Blackdom district, is shut down for fuel at 583 feet.

COLORADO

The division headquarters of the Stanolind Oil & Gas Co., which were established in Denver when that company took over the properties of Midwest Refining Co. a few months ago, were moved to Casper, Wyo., on February 1. The change involved the land, geological and production departments. Only the divisional sales headquarters of Standard Oil Co. (Indiana) will remain in Denver. Among those who will go to Casper are C. D. Buffett, divisional superintendent; John R. Evans, petroleum engineer; John G. Bartram, geologist; A. G. Fidel, purchasing agent, and George Jenkinson, head of the division land department. H. G. Naylor, who was vice president of the Midwest, will go to Chicago as manager of the bulk sales department.

Weld County

Ramsey Petroleum Co.'s No. 1 St. Anthony, SW NE SE Section 15-7n-59, in the New Raymer-Buckingham district, which is being plugged back from the Dakota to complete as a gas well in the Muddy, was gauged the first of the week and made 3,000,000 feet of gas, a slight increase over the former gauging. The gas is being run through the separator and a recovery of around 100 gallons of drip gasoline per day is being recovered. Swabbing has been in progress to open the gas channels and a little water, about 3 bbls. per day, has been showing. It comes from an undetermined source, but appears to be dead water and it is believed it will soon be exhausted.

Continental Oil Co. and others' No. 1 Anthes, C NE NE Section 24-8n-59, 5 miles north of the Ramsey well, is preparing to cement 10-inch at 3,318 feet and by the time this job is finished, rigging is expected to be completed. At this depth a changeover from cable to rotary tools is being made. No new locations have yet been released and it is now considered probable additional drilling will await the completion of No. 1 Anthes.

Elbert County

J. M. Botts and others' No. 1 Union Pacific-Richardson, C NW SE Section 7-8s-58, near Buick, is shut down. Depth is not being given out by the operator, but estimates made on the quantity of drill stem not used out of a total of 4,000 feet put the depth at around 3,650 feet. This is less than former estimate of 4,200 feet. Progressive Oil & Land Co.'s No. 1 Pease, NE SE SW Section 27-10s-60, Springer district, near Simla, which spudded in 1929 with a Star rig, is preparing to resume at 640 feet. A derrick is being built over the machine. The 10-inch is at 570 feet and the 12½-inch at 40 feet. It cut three water sands within the first 100 feet. It is in the center of a block of 15,000 acres leased by Doctor Richardson of Colorado Springs.

Fremont County

Two operations in the Florence area not heretofore reported are Dr. T. A. Davis' No. 7 Mojada, NE SW SE Section 21-20-69, in the South Florence extension, which is shut down temporarily at 490 feet, and Cherry Creek Placer Co.'s No. 1 Lucas, SW cor. NE Section 32-18-69, in the old Florence Field, which had a show of oil at 690 feet and is waiting for 5⅞-inch pipe. Waterville Oil Co.'s No. 1 State, SE cor. NW Section 16-18-69, Phantom Canon, north of the Florence Pool, is suspended at 1,790 feet. It has made no new hole for the past year. It started in the red beds.

Rio Blanco County

The California Co.'s No. 1 California-Raven, NW SE Section 30-2n-102, Rangely Dome, is coring and drilling at 6,972 feet. No information except depth is being released, but it is estimated the well is now below the Weber and headed for a sand just above the Madison and about 2,300 feet below the bottom of the Weber (Tensleep) as shown by outcrops in Moffat County. The test has gone through several hundred feet of formation showing some saturation in the cores.

WYOMING

Albany County

Application to the U. S. Geological Survey has been made by S. Marvin James & Co., of Denver, for permission to drill a test in Albany County in the SW Section 10-13n-76, on the Riverside ranch, near Jelm, on the Laramie River. It will start in a 12½-inch hole with a sand in the top of the Casper formation at ap-

proximately 1,150 feet as the first objective. George Day, an experienced driller in Salt Creek, will be in charge of the drilling and O. C. Nelson, and associates, of Laramie, are interested. It is on a government permit adjoining the famous Riverside ranch.

Carbon County

Ohio Oil Co.'s No. 1 Hanawha, SW NW NE Section 34-23-79, Allen Lake Dome, cemented 6⅝-inch on top of the Dakota at 1,334 feet and is preparing to drill into the sand. A core taken of the sand showed gas saturation. It is in the vicinity of a well drilled by the Cosden interests several years ago which made 30,000,000 feet of gas initial. The well is being drilled to develop an additional gas reserve for Laramie. Ohio Oil Co. recently acquired the local distributing system of Laramie Gas Co. for its operating subsidiary, Rocky Mountain Gas Co. It is being converted for natural gas which will come from wells of the Ohio company and the Mutual Oil Syndicate at Dutton Creek. Conversion of the local system and building connections with the old oil line of the Illinois Pipe Line Co., will cost approximately $670,000.

Fremont County

The Texas Company's No. 2 State-Ridgway, SE SW SW Section 36-34-95, Alkali Butte, resumed at 4,616 feet after testing a gas sand at 4,571-91 feet which gauged 6,000,000 feet per day. It is coring below 4,626 feet.

The Big Four Oil Co. is installing a central power on its holdings in Pilot Butte to pump its shallow producers. The oil is refined in a skimming plant on the lease and the gasoline is being sold through a service station in Riverton.

Uinta County

Trans-Western Petroleum Co. Ltd.'s No. 1 Union Pacific, C SE Section 6-14-118, Aspen district, has been abandoned at 5,092 feet. This well was started early in 1928 by Olson & Zimmerman and Deseret Oil & Refining Co. and later was taken over by E. L. Doheny, who started a new hole. It had a show of oil at 2,600 feet and a show of gas at 4,062-4,101 feet.

Park City Oil & Gas Co.'s No. 1 Christensen, NE cor. Section 6-15-113, Lyman district, is suspended indefinitely, but not abandoned, at 3,070 feet.

Sublet County

Piney-LaBarge Oil Co.'s No. 2 Cretaceous, NE cor. NW Section 12-28-114, Dry Piney, known as the "Jap" well because a number of Japanese were interested, is reported abandoned at 1,070 feet.

Lincoln County

H. C. Harris and others' No. 1, C NW SE Section 14-21-117, Fossil district, is reported abandoned without plugging at 1,507 feet in gray lime.

Hot Springs County

The Hamilton Dome Field which has been shut in for several weeks is again running crude to the Standard refinery at Greybull. It is producing around 700 bbls. per day.

Big Horn County

Torchlight Oil Corp.'s No. 1, Lot 8, SW cor. SE Section 19-51-92, Torchlight Field, is shut down for the winter at 3,894 feet with the 4¾-inch at 3,795 feet. W. O. Taylor and others' No. 1 Hoskins, Lot 5, Section 25-56-97, Byron Dome, spudded January 23 and is drilling at 180 feet. It will be a test for green oil located south of the fault. First Frontier is expected at 1,700 feet.

Natrona County

Leo B. Murphy and others' No. 1, SE NW Section 29-33-80, North Platte, is bottomed at 750 feet and running 8¼-inch to carry.

Park County

Continental Oil Co.'s No. 1 Northern Pacific, SE SW NE Section 23-58-98, Frannie Dome, is bottomed at 3,334 feet and preparing to make a pumping test. It has been swabbing under adverse winter conditions and the results indicate it will be a good producer and probably equal to or better than the nearest producer, half a mile south, which made 600 bbls. initial.

Converse County

Continental Oil Co.'s No. 30 Glenrock Sheep, SW SE SE Section 4-33-76, Big Muddy, is shut down at 4,767 feet.

Platte County

T. R. Oberman's No. 1 Diamond ranch, NW SE Section 30-21-68, west of Chugwater, is drilling at 200 feet.

Niobrara County

Interstate Oil & Refining Co.'s No. 1 Morrell, SW cor. SE Section 2-39-61, West Mule Creek, is fishing at 2,230 feet.

MONTANA

Carbon County

Ohio Oil Co.'s No. 11 Bowman, C SE NE Section 4-7s-21, Dry Creek, which extends the proven area a mile northwest, has been completed in the Dakota and Lakota after plugging back from 5,928 feet and made an average of 150 bbls. per day after shutting off bottom water. It has been shut in for lack of storage. Same company's No. 9 Souders, C NE SW Section 2-7s-21, is still shut down at 4,625 feet due to water shortage. Carbon Oil & Gas Co.'s No. 1 McMinn, NW SW SW Section 7-7s-22, is still waiting at 5,551 feet for adjustment of insurance on rig which burned when the well caught fire.

Glacier County

One new location in the Cut Bank Field was reported in Santa Rita Oil & Gas Co.'s No. 1 Tribal, C SW NE Section 15-35-6w, in the Blackfeet Indian reservation. Cellar has been completed and some materials are on the ground. It is on the tract of Indian land recently leased by the company at an auction sale and in unexplored territory. The location is 2 miles west and north of The Texas Company's No. 1 Small, completed in 1930 as a small gas well, and 4 miles north of R. C. Tarrant's No. 1 Reikhoff, the nearest oil well.

L. R. Hannah and others' No. 1 Britton, SE SW SE Section 14-34-6w, which was completed at a total depth of 2,897 feet, proved to be one of the best wells in the field and swabbed 195 bbls. in 16 hours from the pay at 2,857-90 feet. The derrick was wrecked while pulling 10-inch.

R. C. Tarrant's No. 1 Britton, NE cor. SE Section 14-34-6w, which showed for a small producer at a total depth of 2,986 feet, improved after a shot and swabbed an average of 40 bbls. per day while cleaning out.

R. C. Tarrant's No. 1 McLellan, C SE SW Section 7-34-5w, is drilling at 1,840 feet with cable tools, and his No. 1 Miller, C NE NE Section 24-34-6w, is shut down at 1,250 feet. Tarrant's No. 1 Haglund, Sr., SW cor. NW Section 13-34-6w, which has been swabbing to test from sand at 2,838-80 feet, will be given a shot before completing.

Alberta-Pacific Consolidated Oil Co.'s No. 1 Matson, NE SE NW Section 14-34-6w, is bottomed at 2,770 feet and drilling by tools, and its No. 1 Kiesel, NE cor. NW Section 11-34-6w, is cleaning out at 2,500 feet after a shutdown to overhaul engine. Dakota-Montana Oil Co.'s No. 1 Drumhellar, SW SE NE Section 3-34-6w, is drilling at 2,735 feet after landing 8¼-inch at 2,725 feet. W. M. Fulton and others' No. 1 Haggerty, NE cor. Section 16-34-6w, is rigging up, and Hannah-Porter Co.'s No. 1 Britton, NW NE NE Section 23-34-6w, is still shut down after spudding. E. J. Lesser and Santa Rita Oil & Gas Co.'s No. 1 Jackson, C NW SW Section 25-34-6w, topped the Colorado at 540 feet and cemented 15½-inch at 580 feet. B. E. Adams and others' No. 1 Britton, SE cor. NE Section 14-34-6w, is bottomed at 2,795 feet and trying to run 6⅝-inch past sidetracked tools.

Yellowstone County

Peter Antonili's No. 1, NW cor. NE Section 21-2n-25, Happy Hollow, is reported abandoned at 2,565 feet, and W. E. Rice and others' No. 1 Haggerman, SE Section 30-2n-23, Devil's Hole, is drilling at 2,500 feet.

Sweetgrass County

Shoshoni Consolidated Oil Co.'s No. 1 Northern Pacific, NW NW Section 23-2n-15, Hamilton Coulee, is reported to have suspended at 6,100 feet. The Dakota was expected at this depth.

Petroleum County

Minnesota-Flatwillow Oil Co.'s No. 1, SW SW Section 4-15-29, Cat Creek, is drilling at 1,050 feet.

Golden Valley County

Golden Valley Oil Co.'s No. 1, SW SE SE Section 28-6n-22, Belmont district, is shut down at 3,570 feet waiting for adjustment of insurance on burned rig before erecting new rig.

Gallatin County

Montana Gas & Petroleum Corp.'s No. 1 Adams, SE cor. Section 35-2n-1e, Three Forks district, is resuming at 1,730 feet.

Official Report on Alberta Crude Production; Revival of Activity in Red Coulee Field

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Feb. 4. — Official figures of crude oil production from all Alberta fields in 1932, issued by the Department of Lands and Mines for the province, show a total production of 917,622 bbls., compared 1,455,195 bbls. in 1931. The major part of the decline was in Turner Valley naphtha, and was due partly to natural decline in old producing wells, partly to the fact that this was not offset by new production from the deep lime horizon, and partly to the restrictions imposed with a view to conservation of the gas reserves. December production from Turner Valley showed some recovery as compared with months immediately preceding.

Red Coulee Field

In the Alberta portion of the international Red Coulee Field there has been some revival of activity, with a prospect of further drilling in the spring. Southern Alberta Exploration Co.'s No. 1, Section 2-1-16w4, which has been off production for some time, is reported on the pump making around 20 bbls. a day. The test was originally drilled several years ago, getting production around 2,600 feet, but failed to hold up. It is fairly close to the Vanalta group of producers, just north of the Montana line.

Farther north, Devonshire Oils' No. 1, LSD 4, Section 10-1-16w4, is reported making new hole below the old bottom at 1,900 feet.

D. A. McDonald Syndicate's Ko-Top No. 1, LSD 1, Section 2-1-17w4, is expected to resume work in the spring. This was the second of two wells drilled in this section by Ko-Top Oils, Ltd., of Calgary.

North Turner Valley

In the North Turner Valley, Model Oils' No. 2, LSD 16, Section 22-20-3w5, is making hole very slowly in a hard formation below 4,225 feet. Farther east United Oils' No. 4, LSD 2, Section 24-20-3w5, is sidetracking below 5,470 feet with about 1,000 feet of light crude in the hole. The production comes from the Dalhousie sand.

South Turner Valley

Interest in the South Turner Valley centers in Mar-Jon-Freehold's No. 1, LSD 9, Section 28-18-2w5, which is resuming after cementing 6⅝-inch casing 23 feet in the lime at 5,427 feet. The test previously got a depth of 5,469 feet, and has since been sidetracking. About 150 feet of drilling may be needed to get the producing horizon in the lime. The test is expected to be the next completion in the Turner Valley.

Associated Royalties' No. 1, LSD 9, Section 5-19-2w5, is making new hole after drilling out cement at 3,310 feet.

New Test for Far South

An important new test will be started within about six weeks in Section 21-18-2w5, by Jesse and Frank Lundy of Calgary, associated with the Hoffer interests of Vancouver, British Columbia. The Lundy Syndicate has secured a lease on LSD 13, Section 21-18-2w5, from Frank Harvie and Hardie Turnbull of Calgary and is planning to drill a test to the deep lime. The acreage is slightly north of Union Drilling Co.'s No. 1, and a little less than a mile south of Mar-Jon-Freehold's No. 1, the nearest deep test now drilling. The acreage is just outside the Turner Valley conservation area. The location is in line with the southeast-northwest trend of the Turner Valley production and a producing well will extend the proven field approximately 1 mile southeast.

Crude Prices Reduced

Effective January 24, prices of crude in the various Alberta fields were reduced, in line with recent reductions elsewhere. Turner Valley naphtha dropped 50 cents, crude naphtha going down from $3.32 to $2.82 and discolored naphtha from $3.08 to $2.58. Light crude 50 degrees and up dropped from $2.80 to $2.41 and crude from 36 degrees to 49.9 degrees dropped to $1.90 and crude from 31 to 35.9 degrees dropped to $1.41. The previous prices had been unchanged since April 22, 1932.

Border Fields

On the Twin River structure, southeast of Lethbridge, Nordon-Roney's No. 2 Twin River, LSD 11, Section 2-2-20w4, is standing at 261 feet, but will resume when weather improves. Northwest of Lethbridge, Hudson's Bay Oil & Gas Co.'s No. 1 Keho, LSD 2, Section 17-11-22w4, is conducting a bailing test following a shot of the stray sand in the Benton shale at 3,770 feet. Liner was set between 3,770 and 3,780 feet, and considerable oil is reported in the hole.

Cut Bank Field

On the Montana side, tests by Canadian interests in the Cut Bank Field are held up on the verge of completion. Alberta Pacific Consolidated Oils' No. 1 Matson, S half NW Section 14-34-6w, is fishing at 2,770 feet. Alberta Pacific's No. 1 Kiesel, Section 11-34-6w, at 2,449 feet is shut down for engine repairs.

Carnegie Petroleums, Ltd., of Calgary has secured some acreage near the Reich-

off well in Section 3-34-6w, and may drill a test.

L. R. Hannah's No. 1 Britton, SE SW SE Section 14-34-6w, is being finished and looks like a good producer. The well got the Darling sand at 2,835 feet and encountered oil at 2,860 feet, drilling continuing to 2,897 feet, some 7 feet below the bottom of sand. The 8-inch was set on top of the sand and oil rose 2,000 feet or more in the hole. Tarrant's No. 1 Britton, NE NE SE Section 14-34-6w, is still swabbing. This test bottoms at 2,916 feet and after sanding 10 days had 1,800 feet of oil in the hole. Tarrant's No. 1 Haglund, Sr., SW SW NW Section 13-34-6w, bottomed at 2,846 feet, has some oil and is swabbing. B. E. Adams' No. 1 Britton, SE SE NE Section 14-34-6w, is reported to have sidetracked lost tools and to be drilling close to production, below 2,800 feet. There are two other tests drilling, two standing and one rigged ready to spud.

A new company, Southern Oils of Alberta, Ltd., is reported planning to drill an offset well to the unfinished Myers & Johnson test in the Kevin-Sunburst Field. Location is on the Adams farm.

Moose Dome Test

In the Alberta foothills, Herron Cartage Co.'s Moose Oils No. 1, LSD 16, Section 29-22-6w5, is cleaning out below 2,802 feet. The old hole bottomed at 2,835 feet, with some shows of oil and gas.

Tests in the Foothills

On the Monarch structure, west of Olds, Hunter Valley Oil Co.'s No. 1, Township 31-10-w5, is finishing derrick. Cartier-Majestic's No. 1, LSD 3, Section 36-31-7w5, is reported sidetracking lost bit at 1,420 feet after an unsuccessful fishing job.

Athabaska Drilling

In the Athabaska district, northern Alberta, Athadome Oils' No. 2, LSD 3, Section 15-66-23w4, is making new hole after cementing against caving at 600 feet.

Oil Producers Meeting

A meeting of the Petrolia and District Crude Oil Producers Association was held at Petrolia recently when recent reductions in the price of Ontario crude, amounting to 30 cents per barrel, were discussed. The meeting was in charge of Mayor K. C. Kerr of Petrolia. A committee comprising F. W. Howlett, C. O. Fairbank, K. C. Kerr, W. McIntosh, all of Petrolia, and W. Hoon of Glencoe, was named and later conferred with officials of Imperial Oil, Ltd., the conference resulting in a 15-cent increase in the price of Ontario crude, making Petrolia crude $1.75 and Oil Springs crude $1.82 a barrel.

The association named an executive committee comprising A. W. Parks of Oil Springs, and Bloss Sutherland, F. W. Howlett and William McIntosh of Petrolia.

Ontario Drilling

In the Dawn Field, Lambton County, Union Gas Co.'s No. 65, Lot 24, Concession 2, Dawn Township, has been shot with 200 pounds of dynamite. The shot appears to have improved the gas production, though no definite measurement has been made yet. Before the shot the flush production was estimated around 1,000,000 feet a day.

Gulf Coast Fields and Wildcats

(Continued from Page 46)

Sinclair Prairie Oil Co.'s No. 2 Smith (W.O.), W. D. Smith Sur., 39 ft. from N line, 50 ft. from E line of 80-ac. tract ..... Drlg. sandy shale 6,590 ft.

Sinclair Prairie Oil Co.'s No. 14 Wilburn, Henry Griffith League, 150 ft. W of No. 12 ..... Drlg. lime 1,052 ft.

Sun Oil Co.'s No. 15 J. Wilburn, Wm. Hodges Sur., 343 ft. from N line, 420 ft. from W line of lease ..... Fishing drill pipe 4,507 ft.

Sun Oil Co.'s No. 16 Wilburn, Henry Griffith League, 150 ft. W of No. 14 and 50 ft. N of S line ..... Rig.

The Texas Co.'s No. 3 Lawrence fee, Henry Griffith League, 740 ft. W of E line in center of tract..... Drlg. hard lime 4,263 ft.

The Texas Co.'s No. 9 Wilburn, Henry Griffith League, 680 ft. E of NW cor. and 50 ft. S of N line ..... Drlg. salt 2,035 ft.

Texas Gulf Prod. Co.'s No. 11-A Kirby, Henry Griffith League, 1,090 ft. from W line and 225 ft. from S line of "A" lease ..... T.D. 6,180 ft; milled out 5,381 ft; drld. to sand 5,593-5,618 ft; set 41 ft. 10 in. of 5-in. (O.D.) screen; comp. through 3-in. drill pipe, rated potential 2,350 bbls. P.L. oil; ⅝-in. choke; 385 lbs.

Texas Gulf Prod. Co.'s No. 12-H Kirby, Henry Griffith League, 429 ft. W of No. 8-H and 65 ft. N of S line.. Drlg. hard lime 3,373 ft.

Texas Gulf Prod. Co.'s No. 2 O. K. Winfrey, W. D. Smith Sur., 295 ft. N of SW cor. of A. E. Barber lease, 100 ft. W of E line of Winfrey lease ..... Salt 4,120-4,359 ft; standing.

Yount Lee Oil Co.'s No. 20 Chambers County, Wm. Bloodgood Sur., 150 ft. N of No. 2 and 50 ft. E of W line ..... Drlg. shale and boulders 619 ft.

Yount Lee Oil Co.'s No. 21 Chambers County, Wm. Bloodgood Sur., 175 ft. N of No. 20 and 50 ft. E of W line ..... Spudded.

Yount Lee Oil Co.'s No. 4-A Zadie Fisher, Wm. Bloodgood Sur., 301 ft. from W line, 96 ft. from S line of tract ..... Drlg. hard sand 6,594 ft.

Yount Lee Oil Co.'s No. 1 John Schilling, Wm. Bloodgood Sur., 50 ft. W of E line, 139.2 ft. S of N line of tract ..... Derrick.

RABBS RIDGE—FORT BEND COUNTY

Gulf Prod. Co.'s No. 1-A Gubbels, Samuel Kennedy Sur., 506 ft. N, 426 ft. E of SW cor. of 208-ac. tract..... T.D. 5,323 ft; cmtd. 7-in. csg.

Gulf Prod. Co.'s No. 1 Hammerstrom, Samuel Kennedy Sur., 467 ft. N of S line and 466 ft. E of W line of lease ..... Drlg. shale 4,105 ft.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 11-A F. I. Booth, Samuel Kennedy Sur., 6,108 ft. E along N line of J. Rabb Sur., from NW cor. of E½ of survey and 467 ft. N at right angles ..... Location.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 12-A F. I. Booth, Samuel Kennedy, Sur., 598 ft. E of No. 10.. Drlg. sand 3,301 ft.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 4-A George, J. Rabb Sur. ..... Spudded.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 11-A Lockwood & Sharp, J. Rabb Sur. ..... Location.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 13-A Lockwood & Sharp, J. Rabb Sur., 4,174 ft. E, 522 ft. S of NW cor. of lease ..... Rig.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 14-A Lockwood & Sharp, J. Rabb Sur., 4,173 ft. from W line, 526 ft. from S line of lease ..... Location.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 11-B Lockwood & Sharp, J. Rabb Sur., 4,554 ft. from W line, 526 ft. from S line of "B" lease No. 3 ..... T.D. 5,291 ft; cmtd. 7-in. csg.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 12-B Lockwood & Sharp, J. Rabb Sur., 1,729 ft. from E line, 1,129 ft. from S line of "B" lease ..... Derrick.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 13-B Lockwood & Sharp, J. Rabb Sur., 5,382 ft. from W line, 526 ft. from S line of "B" lease ..... Derrick.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 7 Lockwood, J. Rabb Sur., 4,839 ft. from W line, 311 ft. from S line of 323-ac. tract ..... Drlg. sticky shale 3,157 ft.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 6 Meyers, Samuel Kennedy Sur., 6,596 ft. E and 439 ft. N of SW cor. of 275-ac. tract ..... Drlg. shale 4,982 ft.

Humble O. & R. Co. and Gulf Prod. Co.'s No. 1 R. A. and O. H. Wolters, Robt. Peebles Sur., 325 ft. S and 500 ft. W of NE cor. of 1,000-ac. tract ..... Derrick.

Humble O. & R. Co.'s No. 4 Gubbels, Samuel Kennedy Sur., 1,400 ft. N, 2,460 ft. W of SE cor. of 100-ac. lease ..... Drlg. shale 4,110 ft.

Humble O. & R. Co.'s No. 5 Gubbels, Samuel Kennedy Sur., 1,460 ft. N, 1,476 ft. W of SE cor. of 100-ac. tract ..... Location.

The Texas Co.'s No. 4 Wolters, Samuel Kennedy Sur., 1,350 ft. N, 300 ft. W of SE cor. of lease ..... Set 100 ft. of 4½-in. screen 5,280 ft; comp. 30 bbls. per hr.; 3/16-in. choke; 550 lbs. pressure.

SUGARLAND—FORT BEND COUNTY

Koimm Prod. Co.'s No. 1 Peterson, Wm. Littel Sur., 100 ft. SE, 100 ft. SW of NE cor. of tract ..... Sand and shale 3,756 ft; waiting on csg.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 3 Broussard, M. Dunman Sur., 150 ft. E of center of W line of tract ..... Drlg. hard sand 5,010 ft.

Yount Lee Oil Co.'s No. 33 Cade, N. Fitzsimmons Sur., 2,806 ft. from N line, 1,615 ft. from E line ..... Drlg. sand and lime 4,515 ft.

Yount Lee Oil Co.'s No. 34 Cade, N. Fitzsimmons Sur., 856 ft. S of No. 33 ..... Drlg. shale 2,639 ft.

Yount Lee Oil Co.'s No. 1 Mathais fee, 150 ft. from S line, 192 ft. from E line of 23.44-ac. tract in Sarah Reeves Subd., Martin Dunman Sur. ..... Drlg. shale 4,600 ft.

Yount Lee Oil Co.'s No. 14 Smith, Martin Duman Sur., 900 ft. W of No. 12 ..... Drlg. shale 3,625 ft.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 92 Jorditt, C. F. Jorditt Sur., 200 ft. S of No. 90 ..... Rock 1,661 ft; milled out 1,150 ft; bailing.

Seven Wells Oil Corp.'s No. 1 Teel, 400 ft. E of W line of Thomas Gates Sur., 1,250 ft. S of Magnolia Pet. Co.'s (Vacuum's) No. 3 Teel ..... Derrick.

SOUR LAKE—HARDIN COUNTY

M. M. Miller's No. 1 Libbie Oil Co., Stephen Jackson Sur., 1,320 ft. NW of Houston Prod. Co.'s No. 1 Merchant ..... Derrick.

ARIOLA—HARDIN COUNTY

Houston Oil Co.'s No. 1-Y Ariola fee, 5,610 ft. from W line, 5,610 ft. from N line of Ariola Sur. ..... Drlg. sand and shale 5,266 ft.

Republic Prod. Co.'s No. 3 Ariola fee, Ariola Sur., 660 ft. due S of Gulf's No. 1-A Kirby ..... Location.

HUMBLE—HARRIS COUNTY

Sun Oil Co.'s No. 66 River, Robert Dunman Sur., 1,722 ft. from S line, 284 ft. from E line of lease ..... Derrick.

Sun Oil Co.'s No. 70 River, Robert Dunman Sur., 1,222 ft. from S line and 284 ft. from W line of lease.... Sandy shale S.O. 1,326 ft; cmtd. 6-in. csg. 1,190 ft.

MYKAWA—HARRIS COUNTY

Crown-Framer Oil Co.'s No. 4 Minntex, 165 ft. S, 120 ft. W of NE cor. of Blk. 193, Wm. Lovett Sur. ..... Drlg. shale and lime 3,325 ft.

Crown-Framer Oil Co.'s No. 2-A Siadona, Wm. Lovett Sur., 500 ft. E, 100 ft. N of SW cor. of lease ..... Abd. location.

Leon Wilkerson's No. 1 Irwin, Wm. Lovett Sur., 300 ft. N of Humble's No. 1 Irwin ..... Abd. location.

PIERCE JUNCTION—HARRIS COUNTY

Gulf Prod. Co.'s No. 36 Taylor, James Hamilton Sur. No. 53, 650 ft. N of S line of survey, 100 ft. W of Rock Drlg. Co.'s No. 2 Hooks ..... Cored sand S.O. 4,460 ft; setting csg.

Rio Bravo Oil Co.'s No. 14-A Settegast (W.O.), J. Kopman Sur. ..... T.D. 5,379 ft; pulling screen to W.O.

Rio Bravo Oil Co.'s No. 26-A Settegast, J. Kopman Sur., 1,210 ft. from N line, 750 ft. from E line of "A" lease ..... Sandy shale 5,750 ft; cmtd. 6⅝-in. csg. 5,714 ft.

Saxet Oil Co.'s No. 3 Herman (W.O.), J. Kopman Sur. No. 44 ..... Rig up to W.O. 3,778 ft.

FANNETT—JEFFERSON COUNTY

Lowrie & Young's No. 1 Junker, Wm. Smith Sur., 125 ft. N, 100 ft. E of Gulf Prod. Co.'s No. 1 Junker in 360-ac. tract ..... No report.

ESPERSON—LIBERTY COUNTY

Cranfill-Reynolds Co.'s No. 10 Moore's Bluff, M. Duncan Sur., 1,500 ft. from E line, 2,100 ft. from N line of 632-ac. tract ..... Drlg. shale 6,465 ft.

HULL—LIBERTY COUNTY

Aberoil Oil Co.'s No. 1 Barrow, Jesse Devore Sur., 64 ft. from N line, 700 ft. from E line of 10-ac. tract.. Sand showing oil 5,811-23 ft.; cmtd. 6⅝-in. csg. 5,800 ft.

Carpenter & Parr's No. 2 Antilley, Jesse Devore Sur., 321 ft. W, 350 ft. S of NE cor. of 20-ac. lease ..... Derrick.

Eclipse Oil Co.'s No. 1 Gordon, Jesse Devore Sur., 50 ft. out of NE cor. of Empire 13-ac. lease ..... Rigging.

Empire G. & F. Co.'s No. 34 Barngrover, Jesse Devore Sur., 75 ft. out of SW cor. of lease ..... T.D. 5,319 ft; plugged to 4,761 ft.

Hannah Oil Co.'s No. 1 Hannah, Jesse Devore Sur., 100 ft. W of The Texas Co.'s No. 1 Hannah..... Standing 3,665 ft.

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Lynd & Rowe's No. 1 Noble & Lynd, Jesse Devore Sur., 187 ft. out of SE cor. of 5-ac. tract ..... Standing 3,564 ft.
Porter & Baggett's No. 1 Baggett, Jesse Devore Sur., 80 ft. from W line, 50 ft. from S line of 171-ac. tract ..... S.D. 2,071 ft.
Republic Prod. Co.'s No. 148 Dolbear, Jesse Devore Sur., 250 ft. W of No. 139 ..... T.D. 2,749 ft; plugged to 1,705 ft; comp. 200 bbls., 5% wtr.
Republic Prod. Co.'s No. 149 Dolbear, Jesse Devore Sur., 250 ft. W of No. 6 ..... Drlg. 1,410 ft.
D. L. Thibodeaux' No. 2 Taylor, Jesse Devore Sur., 100 ft. N of No. 1 ..... Derrick.
Unique Oil Co.'s No. 1 Knox-Nelson-Layton, Jesse Devore Sur., 30 ft. from N line and midway E and W of ½-ac. tract ..... Drlg. 1,200 ft.

MARKHAM—MATAGORDA COUNTY

E. M. Hamill et al's No. 3 Meyers, Wm. Hadden Sur., 225 ft. due W of No. 1 ..... Spudded.

CONROE—MONTGOMERY COUNTY

Alpha Oil Co.'s No. 2 Keystone Mills, Lemuel Smith Sur., 456 ft. from S and E lines of 200-ac. tract ..... Drlg. shale 1,916 ft.
Alpha Oil Co.'s No. 1-A Krohn, S. H. Bryan Sur., 466 ft. from S line in center E and W of 100-ac. tract ..... Comp. 64 bbls. per hr.; ¾-in. choke; 5,100 ft.
Alpha Oil Co.'s No. 1-C South Tex. Dev. Co., T.&N.O. Sur. No. 13, 450 ft. from N line, 350 ft. from W line of 60 acres ..... T.D. 4,920 ft.
Amerada Pet. Corp.'s No. 2 South Tex. Dev. Co., 466 ft. from S line, 410 ft. from W line of C. A. West Sur. ..... Sand 5,027 ft; cmtd. csg.
Amerada Pet. Corp.'s No. 3 South Tex. Dev. Co., 909 ft. from W line, 1,005 ft. from S line of C. A. West Sur. ..... Drlg. shale 965 ft.
Bishop Oil Corp.'s No. 1 Rhoden, 466 ft. from E line in center N and S of 25.8-ac. tract ..... Derrick.
Bishop Oil Corp.'s No. 1 Rhoden, 466 ft. from W line in center N and S of 25.8-ac. tract ..... Location.
Bishop Oil Co.'s No. 1 Smith & Ratcliff, W. F. Rhodes Sur., 466 ft. out of SE cor. of lease ..... Drlg. shale and lime 2,888 ft.
H. M. Crighton's No. 1-A South Tex. Dev. Co., center of 16-ac. lease in T.&N.O. Sur. No. 5 ..... Location.
Farvin Oil Co.'s No. 1 R. Thompson, center of 10-ac. lease (Lots 55 and 58), C. A. West Sur. ..... Location.
Feltex Oil Co.'s No. 1 Keystone Mills, Lemuel Smith Sur., 466 ft. from E line of 60-ac. lease in center N and S ..... Comp. 5,107 ft; flowed 225 bbls. in 36 hrs; 1/8 to 1/32-in. choke.
Feltex Oil Co.'s No. 2 Keystone Mills, Lemuel Smith Sur., 1,041 ft. W of No. 1, in center of tract N and S. . Derrick.
Feltex Oil Co.'s No. 1 Kirby Bertrand, 466 ft. from N line of G. W. Wagers Sur. in center of lease east and west ..... Sand 5,021 ft; cmtd. csg.
John Gassell's No. 1 E. A. Walker, C. T. Darby Sur., center of 12-ac. tract ..... Location.
Gem Oil Co.'s No. 1 Ezra Moorehead, John McHorse Sur., center of 6-ac. tract ..... Drlg. hard shale 4,937 ft.
Gulf Coast Drlg. & Prod. Co.'s No. 4 Keystone Mills, 489.3 ft. along N line of Ashby James Sur. from NW cor. and 466.6 ft. S at right angles ..... Sand 5,040 ft; cmtd. csg.
Gulf Coast Drlg. & Prod. Co.'s No. 5 Keystone Mills, 934 ft. E of No. 3 and 467 ft. S of N line of Ashby James Sur. ..... Drlg. shale 1,300 ft.
Gulf Coast Drlg. & Prod. Co.'s No. 6 Keystone Mills, 466 ft. out of most westerly NW cor. of A. S. James Sur. ..... Derrick.
Gulf Coast Drlg. & Prod. Co.'s No. 1-A Keystone Mills, Steele Sur., 1,368 ft. from W line of lease and 382 ft. from N line of survey ..... Spudded.
Hamill & Smith's No. 1 South Tex. Dev. Co., center of 5-ac. tract in T.&N.O. Sur. No. 5 ..... Derrick.
Harrison & Abercrombie's No. 4 Alexander, John McHorse Sur., 356 ft. from E line, 425 ft. from S line of lease ..... Location.
Harrison & Abercrombie's No. 6 Alexander, John McHorse Sur., 466 ft. from W line, 300 ft. from S line of lease ..... Location.
Harrison & Abercrombie's No. 1 W. S. Massey, 466 ft. from S and W lines of John Massey Sur. ..... Derrick.
Harrison & Abercrombie's No. 1 Mrs. Lola McShan, T. M. Wiggins Sur., 466 ft. from N line in center E and W of lease ..... Comp. 94 bbls. per hr.; 5/16-in. choke 5,146 ft.
Harrison & Abercrombie's No. 1 Ben Wiggins, M. T. Wiggins Sur., 403 ft. from E line and 207 ft. from S line of 29-ac. tract ..... Derrick.
Harrison & Abercrombie's No. 1 Arthur Wiggins, 403 ft. W of E line and 207 ft. N of S line of T. M. Wiggins Sur. ..... Drlg. shale 3,710 ft.
Hooper-Rutherford Oil Co.'s No. 5 Hooper, I.&G.N. Sur., Abst. 649, 415 ft. from S line, 570 ft. from W line of lease ..... Rig.
Hooper-Rutherford Oil Co.'s No. 4 Hooper, I.&G.N. Sur. No. 649, center of tract E and W and due E offset Houston-Tidal's No. 1 Hooper ..... Rig.
Houston Oil Co.-Tide Water Oil Co.'s No. 4 Cartwright, John Davis Sur., 332 ft. from E line, 799 ft. from N line of lease ..... Location.
Houston Oil Co.-Tide Water Oil Co.'s No. 5 Cartwright, John Davis Sur., 933 ft. E of No. 1 and 466 ft. from S line of lease ..... Sand 5,172 ft; cmtd. csg.
Houston Oil Co.-Tide Water Oil Co.'s No. 6 Cartwright, John Davis Sur., 932 ft. E of No. 5 and 466 ft. from S line of lease ..... Location.
Houston Oil Co.-Tide Water Oil Co.'s No. 3 Joe Hamman, C. B. Stewart Sur., 467 ft. from E line, 1,511 ft. from S line of lease ..... Shale 5,091 ft.
Houston Oil Co.-Tide Water Oil Co.'s No. 4 Hamman, C. B. Stewart Sur., 467 ft. from E line and 1,076 ft. S of No. 2 ..... Sand 5,155 ft; cmtd. csg.
Houston Oil Co.-Tide Water Oil Co.'s No. 5 Hamman, C. B. Stewart Sur., 466 ft. from S and E line of lease ..... Derrick.
Houston Oil Co.-Tide Water Oil Co.'s No. 2 W. N. Hooper, Jr., I.&G.N. Sur. No. 11, 466 ft. from S line of lease in center of tract E and W ..... Comp. 100 bbls. per hr.; ½-in. choke, 5,118 ft.
Houston Oil Co.-Tide Water Oil Co.'s No. 3 W. N. Hooper, Jr., I.&G.N. Sur. No. 11, 667 ft. S of No. 1 in center of tract E and W ..... Derrick.
Humble O. & R. Co.'s No. 8-A Cartwright, J. Davis Sur., 933 ft. NE of No. 6 ..... Location.
Humble O. & R. Co.'s No. 10-A Cartwright, John Davis Sur., 932 ft. E of No. 4 ..... Drlg. sand rock 644 ft.
Humble O. & R. Co.'s No. 1-C Cartwright, John Davis Sur., 550 ft. from S line, 350 ft. from W line of lease ..... Comp. 108 bbls. per hr.; ½-in. choke, 5,145 ft.
Humble O. & R. Co.'s No. 2-C Cartwright, John Davis Sur., 550 ft. from S line, 300 ft. from E line of "C" lease ..... Drlg. shale 1,296 ft.
Humble O. & R. Co.'s No. 3-C Cartwright, J. Davis Sur., 1,375 ft. from E line, 466 ft. from S line of lease ..... Location.
Humble O. & R. Co.'s No. 1-D Cartwright, John Davis Sur., center of 20-ac. "D" lease ..... Comp. 99 bbls. per hr.; ½-in. tubing 5,127 ft.
Humble O. & R. Co.'s No. 1 P. Collins, 466 ft. out of NE cor. of 75-ac. tract, Lemuel Smith Sur. ..... Drlg. 100 ft.
Humble O. & R. Co.'s No. 2 Emory, W.C.R.R. Sur., 2,100 ft. from S line, 350 ft. from E line ..... Drlg. shale 1,294 ft.
Humble O. & R. Co.'s No. 1-B Hirsch, D. McIntyre Sur., 350 ft. from S line, 450 ft. from W line of "B" lease ..... Drlg. shale 2,745 ft.
Humble O. & R. Co.'s No. 2-B Hirsch, D. McIntyre Sur., 450 ft. out of NW cor. "B" lease ..... Comp. 98 bbls. per hr.; ⅛-in. choke, 5,150 ft.
Humble O. & R. Co.'s No. 3-B Hirsch, 1,211 ft. from W line and 547 ft. from N line of D. McIntyre Sur. .. Drlg. sticky shale 800 ft.
Humble O. & R. Co.'s No. 4-B Hirsch, D. McIntyre Sur., 933 ft. S of No. 3 ..... Location.
Humble O. & R. Co.'s No. 2 B. E. Jones (91 acres), 466 ft. from N line and 2,206 ft. from E line of Lemuel Smith ..... Location.
Humble O. & R. Co.'s No. 8 Madeley, Ransom House Sur., S offset Hooper Rutherford Oil Co.'s No. 8 Madeley ..... Drlg. shale 261 ft.
Humble O. & R. Co.'s No. 9 Madeley, 171 ft. from N line and 651 ft. from W line of Ransom House Sur. . Drlg. shale 1,249 ft.
Humble O. & R. Co.'s No. 10 Madeley, Ransom House Sur., 1,718 ft. SE of No. 6 ..... Drlg. shale 5,055 ft.
Humble O. & R. Co.'s No. 11 Madeley, Ransom House Sur., 1,398 ft. S of N line and 466 ft. W of E line. .. T.D. 258 ft; moved rig off; hole cratered.
Humble O. & R. Co.'s No. 12 Madeley, Ransom House Sur., 300 ft. from N line and 1,310 ft. from W line of tract ..... Location.
Humble O & R. Co.'s No. 13 Madeley, Ransom House Sur., 1,100 ft. SE of No. 6 ..... Location.
Humble O. & R. Co.'s No. 14 Madeley, Ransom House Sur., 400 ft. S of N line, south offset Houston-Tide Water No. 2 Hooper ..... Sand 5,090 ft; cmtd. csg.
Humble O. & R. Co.'s No. 15 Madeley, Ransom House Sur., 978 ft. SW of No. 7 ..... Location.
Humble O. & R. Co.'s No. 28 Madeley, Ransom House Sur., 466 ft. S of N line, west offset Standard No. 1 Madeley ..... T.D. 490 ft; hole cratered; moved rig off.
Humble O. & R. Co.'s No. 1 L. B. McComb, L. Smith Sur., 500 ft. from W line, 253 ft. from N line of 150-ac. lease ..... Sand 5,083 ft; cmtd. csg.
Humble O. & R. Co.'s No. 2 McComb, Lemuel Smith Sur., 600 ft. from W line and 255 ft. from N line of lease ..... Drlg. shale and lime 4,269 ft.
Humble O. & R. Co.'s No. 4 Moore, Lemuel Smith Sur., 900 ft. N of No. 2 ..... Sand 5,136 ft; cmtd. csg.
Humble O. & R. Co.'s No. 5 Moore, Lemuel Smith Sur., 933 ft. S of No. 2 ..... Sand 5,030 ft; cmtd. csg.
Humble O. & R. Co.'s No. 7 Moore, Lemuel Smith Sur., 933 ft. E of No. 6 ..... Sand 5,028 ft; cmtd. csg.
Humble O. & R. Co.'s No. 8 Moore, Lemuel Smith Sur., 700 ft. W of No. 1 ..... Comp. 100 bbls. per hr.; ⅛-in. choke, 5,137 ft.
Humble O. & R. Co.'s No. 9 Moore, Lemuel Smith Sur., 933 ft. N of No. 6 ..... Location.
Humble O. & R. Co.'s No. 10 Moore, Lemuel Smith Sur., 933 ft. N of No. 7 ..... Location.
Humble O. & R. Co.'s No. 11 Moore, Lemuel Smith Sur., 933 ft. N of No. 7 ..... Location.
Humble O. & R. Co.'s No. 12 Moore, Lemuel Smith Sur., 1,700 ft. from S line, 1,250 ft. from W line of lease. . Sand 5,050 ft; cmtd. csg.
Humble O. & R. Co.'s No. 13 Moore, Lemuel Smith Sur., 933 ft. SE of No. 4 ..... Location.
Humble O. & R. Co.'s No. 14 Moore, Lemuel Smith Sur., 466 ft. from W line, 330 ft. from S line of tract. .. Sand 5,035 ft; cmtd. csg.
Humble O. & R. Co.'s No. 16 Moore, Lemuel Smith Sur., 933 ft. SW of No. 6 ..... Drlg. shale 1,277 ft.
Humble O. & R. Co.'s No. 2 Ezra Moorehead, 466 ft. E and 466 ft. S from most southerly NW cor. of L. A. Lang Sur. ..... Drlg. shale 968 ft.
Humble O. & R. Co.'s No. 1 L. B. Rooker (120 acres), J. M. Real Sur., 521 ft. from W line and 466 ft. from N line ..... Drlg. sticky shale 2,682 ft.
Humble O. & R. Co.'s No. 28 South Tex. Dev. Co., 1,450 ft. from S line, 900 ft. from W line of T. C. Howell Sur. ..... Location.
Humble O. & R. Co.'s No. 29 South Tex. Dev. Co., 1,900 ft. from S line, 1,300 ft. from E line of T. C. Howell Sur. ..... Location.
Humble O. & R. Co.'s No. 32 South Tex. Dev. Co., 1,300 ft. from S line, 4,800 ft. from E line of Theo. Slade Sur. ..... Location.
Humble O. & R. Co.'s No. 33 South Tex. Dev. Co., 1,300 ft. from S line, 4,000 ft. from E line of Theo. Slade Sur. ..... Location.
Humble O. & R. Co.'s No. 34 South Tex. Dev. Co., Theo. Slade Sur., 933 ft. NE of No. 33 ..... Location.
Humble O. & R. Co.'s No. 35 South Tex. Dev. Co., Theo. Slade Sur., 1,095 ft. NE of No. 34 ..... Location.
Humble O. & R. Co.'s No. 36 South Tex. Dev. Co., Theo. Slade Sur., 1,010 ft. NE of No. 35 ..... Location.
Humble O. & R. Co.'s No. 37 South Tex. Dev. Co., Theo. Slade Sur., 933 ft. NE of No. 36 ..... Location.
Humble O. & R. Co.'s No. 38 South Tex. Dev. Co., Theo. Slade Sur., 467 ft. N of S line of survey, north offset Houston-Tide Water No. 2 Hamman ..... Comp. 88 bbls. per hr.; ⅛-in. choke, 5,158 ft.
Humble O. & R. Co.'s No. 39 South Tex. Dev. Co., Theo. Slade Sur., north offset No. 1 Sullivan State ..... Sand 5,160 ft.; cmtd. csg.
Humble O. & R. Co.'s No. 40 South Tex. Dev. Co., Theo. Slade Sur., 467 ft. N of S line, north offset Tide Water No. 5 Lewis ..... Sand 5,070 ft.; cmtd. csg.
Humble O. & R. Co.'s No. 41 South Tex. Dev. Co., Theo. Slade Sur., 933 ft. S of No. 24 ..... Location.
Humble O. & R. Co.'s No. 42 South Tex. Dev. Co., Theo. Slade Sur., 1,114 ft. NE of No. 43 ..... Spudded.
Humble O. & R. Co.'s No. 43 South Tex. Dev. Co., Theo. Slade Sur., 933 ft. NE of No. 31 ..... Location.
Humble O. & R. Co.'s No. 5-B South Tex. Dev. Co., 389 ft. from E line and 466 ft. from S line of C. T. Darby Sur. ..... Drlg. gumbo 2,246 ft.
Humble O. & R. Co.'s No. 1 Mrs. L. Wiggins (23 acres), L. Smith Sur., 466 ft. from N and W lines of lease. . Comp. 81 bbls. per hr.; ⅛-in. choke, 5,146 ft.
Humble O. & R. Co.'s No. 2 Mrs. L. Wiggins, Lemuel Smith Sur., 577 ft. from N line and 375 ft. from E line of tract ..... Spudded.
Humble O. & R. Co.'s No. 2 Williams, Lemuel Smith Sur., 253 ft. from N line and 600 ft. from W line of 46-ac. tract ..... Derrick.
Humble O. & R. Co.'s No. 3 Williams, Lemuel Smith Sur., 466 ft. W of E line in center of 46-ac. tract N and S ..... Drlg. sand and shale 3,171 ft.
McAlbert Oil Co.'s No. 1 Keystone Mills, A. Steele Sur., 433½ ft. S of N line of lease in center of tract E and W ..... Rig.
J. R. Meeker's No. 1 Fannie Hooper, J. W. Watson Sur., center of 20-ac. tract ..... Drlg. shale 1,235 ft.
Mortex Oil Co.'s No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 13, 350 ft. from W line, 150 ft. from N line of tract ..... Derrick.
M. J. Munn's No. 1 South Tex. Dev. Co., 150 ft. from E line, 140 ft. from S line of Lot 114, Clark Beach Sur. ..... Drlg. shale 3,992 ft.
Navarro Oil Co.'s No. 1 Perry heirs, C. M. Wiggins Sur., 466 ft. from W line of lease in center N and S. . Sand 5,050 ft.
Neuhaus & Horn's No. 1 South Tex. Dev. Co., center of L. L. Horn 16.31-ac. tract in T.&N.O. Sur. No. 5 Derrick.
Neversuch Oil Co.'s No. 2 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 922 ft. N of No. 1, in center of tract E and W ..... Cmtd. surface csg. 935 ft.

North Star Oil Co.'s No. 1 Crestwood, T.&N.O. Sur. 15, 466 ft. from S and W line of 77-ac. tract ..... Location.
Showers & Moncrief's No. 2 Dunn, Wilson Strickland Sur., 990 ft. S of No. 1 ..... Rig.
Showers & Moncrief's No. 3 Dunn, Wilson Strickland Sur., 990 ft. S of No. 1 ..... Location.
Skelly Oil Co.'s No. 1 John Rhoden (formerly Farlyn Oil Co.'s No. 1 John Rhoden), Wilson Strickland Sur., center of 14.9-ac. tract ..... T.D. 5,099 ft; cmtd. csg.
Skelly Oil Co.-Conroe Oil Co.'s No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 466 ft. from S line of 32.63-ac. lease in center E and W ..... Comp. 65 bbls. per hr.; ½-in. choke, 5,132 ft.
Skelly Oil Co.-Conroe Oil Co.'s No. 2 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 467 ft. from N line of 32-ac. tract in center E and W ..... Derrick.
Southern Drlg. Co.'s No. 1 South Tex. Dev. Co., T.&N. O. Sur. No. 5, center of 5-ac. tract ..... Rig.
South Gulf Oil Co.'s No. 1 E. M. Rauh, T.&N.O. Sur. 5, 333 ft. from E line of 20-ac. lease in center of N and S ..... Drlg. shale 2,110 ft.
Southland Oil Co.'s No. 4 Cummings, Wilson Strickland Sur. ..... Drlg. shale 2,375 ft.
Standard Oil Co. of Kansas' No. 2 Madeley, Ransom House Sur., 933 ft. S of No. 1 ..... T.D. 1,200 ft; blew out and cratered; burning.
Standard Oil Co. of Kans.' No. 3 Madeley, Ransom House Sur., 480 ft. from E line and 466 ft. from S line of lease ..... Drlg. 500 ft.
Standard Oil Co. of Kansas' No. 2 Smith & Ratcliffe, lower W. S. Rhodes Sur., 207 ft. from N line, 403 ft. from E line ..... Drlg. 1,420 ft.
Standard Oil Co. of Kans.' No. 3 Smith & Ratcliff, W. S. Rhodes Sur., 466 ft. from N and W lines of lease.. Spudded.
Standard Oil Co. of Kans.' No. 4 Smith & Ratcliffe, W. S. Rhodes Sur., 503 ft. along E line of Rhodes Sur. from SW cor. of Humble's Rooker lease and west 466 ft. at right angles ..... Location.
Standard Oil Co. of Kans.' No. 5 Smith & Ratcliffe, W. S. Rhodes Sur., 466 ft. out of SW cor. of lease .. Rig.
Steinberger, Brown & Wheeler's No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 450 ft. from S line in center E and W of 20-ac. tract in 40-ac. lease ..... Spudded.
C. C. Steinberger's No. 2 South Tex. Dev. Co., T.&N.O. Sur., Abst. 568, 1,100 ft. from S line in center E and W of 25-ac. tract ..... Sand 5,100 ft; cmtd. csg.
Strake Pet., Inc.'s No. 1 Keystone Mills, Lemuel Smith Sur., 1,200 ft. southward along W line of Alpha 200-ac. lease from NW cor. and 466 ft. W at right angles ..... Drlg. shale 4,871 ft.
Strake Pet., Inc.'s No. 1 Elizabeth Moody, C. B. Stewart Sur., 1,400 ft. from S line and 467 ft. from E line of 726-ac. tract ..... Drlg. shale 2,965 ft.
Sun Oil Co.'s No. 1 Keystone Mills, 466 ft. from N and E lines of John Bricker Sur. ..... Drlg. gumbo 3,053 ft.
Sun Oil Co.'s No. 1 W. S. Stewart, 466 ft. from S and E lines of J. M. Real Sur. ..... Coring shale 4,024 ft.
The Texas Co.'s No. 1 H. M. Dudley, C. B. Stewart Sur., 466 ft. S 15 deg. E, 466 ft. S 75 deg. W from NE cor. of lease ..... Set 64 ft. 7 in. of 4¾-in. screen 5,120 ft; washing.
The Texas Co.'s No. 7 Moody, Ransom House Sur., 1,306 ft. from N line and 466 ft. from E line of lease.. Drlg. shale 5,000 ft.
The Texas Co.'s No. 9 Moody, S 40 deg. W 3,379 ft., N 30 deg. W 284 ft. from SE cor. of Ransom House Sur. ..... Comp. 30 bbls. per hr.; 7/16-in. choke, 5,120 ft.
The Texas Co.'s No. 10 Moody, 4,030 ft. from E line, 600 ft. from S line of Ransom House Sur. ..... Rigging up.
The Texas Co.'s No. 12 Moody, Ransom House Sur., 933 ft. S of No. 8 ..... Location.
The Texas Co.'s No. 13 Moody, 2,180 ft. from E line, 466 ft. from S line of Ransom House Sur. ..... Derrick.
The Texas Co.'s No. 14 Moody, 1,330 ft. from E line, 466 ft. from S line of Ransom House Sur. ..... Sand 5,044 ft; cmtd. 7-in. csg. 5,023 ft.
The Texas Co.'s No. 15 Moody, Ransom House Sur., 966 ft. N of No. 14 ..... Location.
The Texas Co.'s No. 16 Moody, 1,383 ft. SW along S line of Wilson Strickland Sur. from SE cor. and 466 ft. S at right angles in Ransom House Sur. .... Drlg. sand 2,955 ft.
The Texas Co.'s No. 18 Moody, N 60 deg. E 2,919 ft. and N 30 deg. W 253 ft. from SW cor. Ransom House Sur. ..... Drlg. sand and shale 762 ft.
The Texas Co.'s No. 19 Moody, 1,682 ft. NE along SE line of Ransom House Sur. from SW cor. and 466 ft. NW at right angles ..... Derrick.
The Texas Co.'s No. 20 Moody, 2,200 ft. E along S line of Wilson Strickland Subd. from SW cor. and 466 ft. S at right angles ..... Location.
The Texas Co.'s No. 3 Rhodes, 979 ft. 15 deg. W, 466 ft. N 75 deg. E of SW cor. of W. S. Rhodes Sur. .... Location.
The Texas Co.'s No. 3 Rhodes, Rhodes Sur., 1,854 ft. N 15 deg. W and 466 ft. N 75 deg. E of SW cor. of survey ..... Drlg. sand and shale 4,961 ft.
The Texas Co.'s No. 5 W. S. Rhodes, 466 ft. S of SW cor. of C. T. Darby Sur., and 350 ft. at right angles in W. S. Rhodes Sur. ..... Location.
The Texas Co.'s No. 6 Rhodes, 2,000 ft. W of E line of lease and 466 ft. S of S line of C. A. West Sur. in W. S. Rhodes Sur. ..... Drlg. sand and shale 4,269 ft.
The Texas Co.'s No. 7 Rhodes, 1,310 ft. from E line of lease and 330 ft. S of S line of C. A. West Sur. in W. S. Rhodes Sur. ..... Location.
The Texas Co.'s No. 8 Rhodes, 330 ft. S of S line of C. A. West Sur., and 330 ft. W of W line of John Massey Sur. in W. S. Rhodes Sur. ..... Location.
The Texas Co.'s No. 9 Rhodes, W. R. Rhodes Sur., 1,-290 ft. from N line and 466 ft. from E line ..... Location.
The Texas Co.'s No. 10 Rhodes, 466 ft. W, 466 ft. N of SE cor. of W. S. Rhodes Sur. ..... Drlg. gumbo 2,364 ft.
The Texas Co.'s No. 11 Rhodes, 466 ft. from S line, 1,398 ft. from E line of W. S. Rhodes Sur. ..... Location.
Harvey Thornton's No. 1 John Rhodes, Ransom House Sur., center of 3.29-ac. tract ..... Cmtd. surface csg. 1,297 ft; standing.
Tide Water Oil Co.-Strake's No. 1 Dean, W. C. C. Lynch Sur., 370 ft. S of N line of survey and 2,489 ft. from W line of lease ..... Rig.
Tide Water Oil Co.-Strake's No. 2 Dean, W. C. C. Lynch Sur., 2,351 ft. S along W line of survey from SW cor. of E. P. Brown Sur. and thence 467 ft. E at right angles ..... Location.
Tide Water Oil Co.'s No. 2 Freeman, John Davis Sur., 1,384 ft. from S line, 332 ft. from W line of 36 acres.. Drlg. gumbo 935 ft.
Tide Water Oil Co.'s No. 1 J. R. Eichlets, Lemuel Smith Sur., 2,147 ft. from E line and 226 ft. from S line of 100-ac. tract ..... Derrick.
Tide Water Oil Co.'s No. 2 J. R. Eichlets, Lemuel Smith Sur., 310 ft. from E line and 596 ft. from S line of 100-ac. tract ..... Location.
Tide Water Oil Co.'s No. 9 Lewis, C. B. Stewart Sur., 1,570 ft. from S line, 466 ft. from W line of tract.. Comp. 84 bbls. per hr.; ½-in. choke, 5,123 ft.
Tide Water Oil Co.'s No. 10 Lewis, C. B. Stewart Sur., 650 ft. from E line, 466 ft. from N line of survey.. Shale 5,030 ft.
Tide Water Oil Co.'s No. 11 Lewis, C. B. Stewart Sur., 1,865 ft. from N line, 467 ft. from W line of lease.. Sand 5,076 ft; cmtd. csg.
Tide Water Oil Co.'s No. 12 Lewis, 1,554 ft. from E line, 467 ft. from N line of lease, C. B. Stewart Sur... Drlg. sand 1,616 ft.
Tide Water Oil Co.'s No. 13 Lewis, C. B. Stewart Sur., 2,176 ft. from N line and 467 ft. from E line of lease Derrick.
Tide Water Oil Co.'s No. 14 Lewis, C. B. Stewart Sur., 2,833 ft. from N line and 467 ft. from E line of lease. Location.
Tide Water Oil Co.'s No. 15 Lewis, C. B. Stewart Sur., 2,761 ft. from N line and 467 ft. from W line of lease. Location.
Tide Water Oil Co.'s No. 1 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 380 ft. from E line, 577 ft. from S line of lease ..... Comp. 124 bbls. per hr.; ½-in. choke, 5,108 ft.
Tide Water Oil Co.'s No. 2 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 380 ft. from E line, 467 ft. from N line of lease ..... Comp. 100 bbls. per hr.; ½-in. choke, 5,123 ft.
Tide Water Oil Co.-Republic Prod. Co.'s No. 3 South Tex. Dev. Co., T.&N.O. Sur. 15, 380 ft. from E line, 466 ft. from N line of lease ..... Derrick.
Tide Water Oil Co.-Republic Prod. Co.'s No. 4 South Tex. Dev. Co., 467 ft. from N line, 467 ft. from W line of T.&N.O. Sur. No. 5 ..... Location.
Tide Water Oil Co.-Republic Prod. Co.'s No. 5 South Tex. Dev. Co., T.&N.O. Sur. No. 5, 1,459 ft. from W line and 467 ft. from N line of lease..... Location.

PORT NECHES—ORANGE COUNTY

The Texas Co.'s No. 4 Stark, 675 ft. E, 340 ft. N of SW cor. Marshall Beauchamp Sur. ..... Cored sandy shale S.O. 3,272-93 ft.

CLAY CREEK—WASHINGTON COUNTY

Clay Creek Oil Co.'s No. 3 Bimage, J. F. Perry Sur., 1,600 ft. from S line, 150 ft. from E line of survey.. S.D. 1,354 ft; waiting heavier rig.
Sun Oil Co.'s No. 6 Clay, J. F. Perry Sur., 300 ft. N of No. 5 ..... Sand S.O. 1,354 ft; cmtd. 7-in. csg. 1,325 ft.

REFUGIO—REFUGIO COUNTY

Ed Jones' No. 4 Mitchell, Town tract, 900 ft. S of No. 1-B Mitchell ..... No report.

SOUTH LOUISIANA FIELDS

JENNINGS—ACADIA PARISH

Olympic Oil Co.'s No. 1 Luckett, 1,150 ft. S, 75 ft. W of NE cor. Sec. 42-9s-2w ..... S.D. 2,100 ft.
Phillips & Artigue's No. 2 Cruse (W.O.), 85 ft. from E line, 60 ft. from N line of tract in Sec. 47-9s-2w.... Abd. 1,862 ft.
Yount Lee Oil Co.'s No. 11 Housierre-Latrielle, 1,010 ft. N, 5,050 ft. S of SW cor. Sec. 47-9s-2w ..... Drlg. shale 3,266 ft.

DARROW—ASCENSION PARISH

Rio Bravo Oil Co.'s No. 2 Community, Sec. 31-10s-2e, 1,760 ft. S, 400 ft. W of No. 1 ..... Drlg. sandy shale 3,124 ft.
Rio Bravo Oil Co.'s No. 1 Gumbel, 4,000 ft. W, 250 ft. S of NE cor. of S. Gumbel & Co. tract, Sec. 33-10s-2e.. Coring sand 4,989 ft.

SORRENTO—ASCENSION PARISH

Union Sulphur Co.'s No. 23 United Land Co., Sec. 15-10s-4e, 200 ft. N and 90 ft. W of No. 3 ..... Drlg. rock 1,605 ft.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Magnolia Pet. Co.'s No. 3 Waite, 330 ft. out of NE cor. SE Sec. 13-9s-7w ..... Spudded.
Shell Pet. Corp.'s No. 3 Pontenot, Sec. 7-9s-6w, direct E offset Magnolia's No. 2 Waite ..... Drlg. hard sandy lime 6,750 ft.
Shell Pet. Corp.'s No. 2 Heyd, 305 ft. N, 330 ft. W of SE cor. NE Sec. 13-9s-7w ..... Rig.
Shell Pet. Corp.'s No. 1 Stafford, 825 ft. S, 225 ft. E of NW cor. Sec. 18-9s-6w ..... Drlg. shale 1,165 ft.

LOCKPORT—CALCASIEU PARISH

Lockport Oil Co.'s No. 1 Phoenix ..... D.S. stuck 1,200 ft; standing.
Magnolia Pet. Co.'s No. 10 Bordages, Sec. 8-10s-9w, 1,-901 ft. E, 338 ft. N of SW cor. of lease ..... Drlg. sandy shale 6,442 ft.
Magnolia Pet. Co.'s No. 9 Faquahar, 200 ft. N, 150 ft. E of SW cor. NE SE Sec. 8-10s-9w ..... Drlg. sand 1,700 ft.
Magnolia Pet. Co.'s No. 33 Miller, Sec. 9-10s-9w, 200 ft. S and 635 ft. E of NW cor. of lease ..... Bldg. bridge to location.
Union Sulphur Co.'s No. 5 Martha Moss, Sec. 8-10s-9w (location to come) ..... Rig.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 771 fee (D.D.), 431 ft. S and 340 ft. W of center of Sec. 29-9s-10w ..... Tested S.W. 5,156 ft; pulling screen.
Union Sulphur Co.'s No. 776 fee, 125 ft. S, 1,490 ft. W of center Sec. 29-9s-10w ..... Sand 5,022 ft; cmtd. csg.

VINTON—CALCASIEU PARISH

Vinton Pet. Co.'s No. 22 Vincent, 685 ft. N, 620 ft. E of SW cor. Sec. 34-10s-12w, in Lot 116 ..... Drlg. gumbo 2,053 ft.
Wilson-Broach's No. 9 Wilson, Sec. 33-10s-12w, 200 ft. N of No. 8 and 28 ft. E of W line of Strip 7 ..... Set 1 joint of 3-in. screen 3,741 ft; tested S.W.; pulled screen and coring sand 3,770 ft.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 3 Alliance Trust Co., 699 ft. from N line, 1,440 ft. from W line of Sec. 34-11s-1w ..... Abd. in anhydrite 4,810 ft.
Pure Oil Co.'s No. 2 Mulvey, Sec. 34-11s-1w, 1,515 ft. from N line, 1,150 ft. from E line of tract ..... Coring sand showing oil 4,393 ft; top 4,387 ft.

HACKBERRY—CAMERON PARISH

Calcasieu Oil Co.'s No. 1 Hanszen, 300 ft. W and 30 ft. N of SE cor. SW SE Sec. 11-12s-10w ..... Drlg. 1,200 ft.
Calcasieu Oil Co.'s No. 25 Watkins (D.D.), 112 ft. N and 2,795 ft. W of SE cor. of Sec. 13-12s-10w .... Salt 3,328-3,441 ft; abd.
Calcasieu Oil Co.'s No. 40 Watkins, Sec. 24-12s-10w, 262 ft. S of No. 36 ..... Drlg. 200 ft.
Wilfred Lahaye's No. 1 Olevia, Sec. 36-12s-10w, in 2-ac. tract ..... Spudded and S.D.
Jim Oil Co.'s No. 11 Irwin, Sec. 13-12s-10w, 500 ft. N, 75 ft. W of No. 6 ..... No report.
Lackawanna Oil Co.'s No. 1 Ellender, 320 ft. S, 150 ft. E of NW cor. SE SE Sec. 21-12s-10w ..... Derrick.
Massert & Cruse's No. 1 J. B. Duhon, 656 ft. S, 325 ft. E of NW cor. Sec. 26-12s-10w ..... Derrick.
The Texas Co.'s No. 10-B State, 1,000 ft. E, 200 ft. N of NE cor. Sec. 13-12s-10w ..... Drlg. gumbo 3,100 ft.
The Texas Co.'s No. 11-B State, 1,000 ft. E, 600 ft. N of NE cor. Sec. 13-12s-10w ..... Location.
Union Sulphur Co.'s No. 2 Gulf Land-Pure lease, 1,958 ft. N, 200 ft. W of SE cor. Sec. 11-12s-10w ..... Sand S.O. 8,320-27 ft; D.S. stuck.
Yount Lee Oil Co.'s No. 13 School Land, Sec. 15-12s-10w, 200 ft. S of No. 11 ..... Salt 2,316-4,147 ft.

PORT BARRE—ST. LANDRY PARISH

The Texas Co.'s No. 12 Botney Bay, Sec. 4-4s-5e, 125 ft. W of E line of lease and direct offset Gulf's No. 2 Wilson-Cockran ..... No report.
The Texas Co.'s No. 14 Botney Bay, Sec. 4-4s-5e, 274 ft. W of most southerly NE cor. of 562-ac. tract.. Derrick.

CHOCTAW—IBERVILLE PARISH

Standard Oil Co.'s No. 8 Gay, 520 ft. S, 200 ft. E of center Sec. 52-9s-11e ..... Drlg. 3,800 ft.

CAMERON MEADOWS—CAMERON PARISH

Magnolia Pet. Co.'s No. 3 Cameron Meadows, 3,620 ft. S, 1,900 ft. W of NE cor. Sec. 21-14s-13w..... Sand S.O. 5,273 ft; cmtd. 7-in. csg. 5,261 ft; drlg. plug.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 11 Yount Lee, Sec. 12-12s-8w, 800 ft. S 66 deg. 42 min. from No. 9 ..... Drlg. stick shale 5,539 ft.

TEXAS

MISCELLANEOUS WILDCATS

AUSTIN COUNTY

Bunte, Inc.'s No. 1 Dittert, M. N. Allen Sur., 200 ft. SW, 200 ft. NW from W cor. of Henry Vornkahl 16 acres ..... Dry and abd. 4,850 ft.
Great Southern Oil Co.'s No. 1 Schevojas, 329 ft. N, 78 deg. E of N cor. B. Dottery Sur. ..... S.D. 3,250 ft.

BRAZORIA COUNTY

Amerada Pet. Corp. and Rycade Oil Corp.'s No. 3 Seaburn, 1,250 ft. E of W line and 4,550 ft. S of N line of Austin & Williams Sur. ..... Rig.
Danciger O. & R. Co.'s No. 2 Hunt, Pledger, 6,550 ft. from E line, 5,550 ft. from S line of W. Carson Sur. .. Bldg. derrick.
Tri-fin Oil Co.'s No. 1 Moore, 1,635 ft. SW of Chocolate Bayou, 493 ft. SE of NW line of F. Moore Sur. ..... T.D. 3,102 ft; laying fuel line.

BURLESON COUNTY

Ball & Knob's No. 1 Polansky, M. B. Lawrence Sur., 359 ft. from E line, 469 ft. from N line of 155-ac. tract ..... No report.
Sampson O. & G. Co.'s No. 3 Duckworth & Giley, P. Singleton Sur., 50 ft. SE of No. 1 ..... No report.
J. E. Stubblefield et al's No. 1 Mitchell, A. T. Woolridge Sur., 81 ft. SW, 4,340 ft. SE of S cor. of Joseph Henson Sur. ..... Gumbo 600 ft; standing.

CHAMBERS COUNTY

Weaver-Ray's No. 1 Fisher, John Tjams Sur., 210 ft. S of Ruckar et al's No. 1 Fisher ..... S.D. 2,400 ft.

COLORADO COUNTY

Danciger O. & G. Co. and L. E. Hults' No. 1 C. L. Raver, B.B.B.&C. Sur., Sec. 1, 990 ft. out of SW cor. of 477-ac. tract ..... Derrick.
Humble O. & R. Co.'s No. 1 John McShane, L.&G.N. Sur., Sec. 42, 466 ft. out of NE cor of tract ..... Drlg. sticky shale 1,847 ft.
Pilot Oil Co.'s No. 1 Tate, Cooke & DeWeese Sur., 150 ft. NE, 50 ft. NW of S cor. of survey ..... S.D. 1,540 ft.

FORT BEND COUNTY

John Deering and Benedum & Trees' No. 1 Westenfeld, 900 ft. E of W line, 310 ft. N of S line of M. Escalera Sur. ..... Drlg. shale 4,920 ft.
Lowrie & Young's No. 1 Jackson Brown, Pilant Lake, Wm. Barrett & Abner Harris Sur., 152 ft. E, 158 ft. N out of SE cor. Humble 182-ac. Brown lease in D. Hale 548-ac. tract ..... Shale 5,025 ft; preparing to resume drlg.
Lynch et al's No. 1 Kneitz, 690 ft. from NW line, 350 ft. from SW line of Sec. 43, H.&T.C. Sur. ..... No report.
Naylor & DeCosta's No. 1 Naylor, 4,350 ft. N, 55 deg. E from SW cor. 453-ac. tract in Christman Sur. .... T.D. 7,014 ft; standing.

GALVESTON COUNTY

Humble O. & R. Co.'s No. 1 Rosenkranz, Green's Bayou, center N½ of Lot 10, Sarah White Sur. ..... T.D. 7,119 ft; drlg. shale in sidetracked hole 6,986 ft.

GRIMES COUNTY

Barnett et al's No. 1 Dodd, Timothy Jones Sur. ..... Standing 2,689 ft.
W. J. Brightwell's No. 1 Combs, Samuel Beauman Sur., 850 ft. from S line, 622 ft. E of extreme W line of 276-ac. tract ..... Cleaning hole; T.D. 5,260 ft.
Terrell & Clay's No. 1 D. M. Howard, T. Jones Sur., 450 ft. from E line, 750 ft. from S line of lease ..... Location.

HARDIN COUNTY

Joe E. Proctor's No. 1 Russell & Teague, 3,650 ft. E, 2,777 ft. N of NW cor. of Wm. W. Young Sur. ..... T.D. 2,685 ft; hole heaved in.
Robichaux et al's No. 1 Kirby Lbr. Co., 4,167 ft. W, 2,500 ft. N of SE cor. of Ben Hawkins Sur. ..... Abd. 3,900 ft.

HARRIS COUNTY

Mills Bennett Prod. Co.'s No. 1 G. H. Kleppie, March Sur., 400 ft. from N line, 330 ft. from W line of 84-ac. tract and survey ..... Drlg. sandy shale 4,155 ft.
T. V. Buckholve & Sons' No. 1 Miller, Arthur McCormick Sur. ..... Abd. 1,310 ft.
Cherry & Pritchard's No. 1 Dr. Griffith, S. Bell Sur., 582 ft. from E line, 60 ft. from N line of 250-ac. tract ..... T.D. 756 ft; cmtd. 10-in. csg. 650 ft.; abd.
John Deering et al's No. 3 Warren, T. Snell Sur., 100 ft. SW of No. 1 ..... Drlg. gumbo and lime 2,112 ft.

JASPER COUNTY

Smitherman, Neilson & Noble's No. 1 Cameron, Wm. Jones Sur., 400 ft. S 45 deg. W of SW cor. of J. W. Allen 300-ac. tract ..... Drlg. shale 3,290 ft.

JEFFERSON COUNTY

Carroll & Miller's No. 1 C. A. Mashman, W. B. Dyches Sur., 462 ft. W of highway and 105 ft. S of NE line of 13-ac. tract ..... Spudded and S.D.
Coastal Oil Co.'s No. 1 Young, 250 ft. from E line, 160 ft. from S line of 40-ac. tract, in Blk. F-5, Lot 6, Joseph Grigsby Sur. ..... Fishing drill pipe 3,860 ft.
Jack Schultz' No. 2 Todd, Cheek, 1,800 ft. S of No. 1 and 130 ft. E of W line of Wm. Carr Sur. ..... Shale 7,000 ft; S.D. to change rigs.

LIBERTY COUNTY

Mayes et al's No. 1 Dunman, J. C. Martin Sur., 1,111 ft. from S line of survey and 2,360 ft. W of Trinity River ..... Spudded and S.D.
James Papadakis' No. 1 Eicke, Reason Green Sur., 300 ft. from W line of 300-ac. tract in center N and S... Spudded and S.D.

MATAGORDA COUNTY

Cockburn Oil Corp.'s No. 5 Hawkins, Shepherds Mott, 2,200 ft. SE, 1,800 ft. NE of W cor. Daniel McCarthy Sur. ..... T.D. 5,320 ft; drill pipe stuck; plugged back to 2,150 ft.
Dr. Griffith et al's No. 2 Baer, Big Hill, 5,000 ft. N, 3,000 ft. E from SW cor. of Seth Ingram Sur. ..... Standing 2,720 ft.
Humble O. & R. Co.'s No. 1 Pierce Est., Isaac Foster Sur., 330 ft. from N line, 330 ft. from E line of tract ..... Dry and abd. 7,322 ft.
R. L. Sprinkle et al's No. 1 Turner, 4,900 ft. from NE line, 2,800 ft. from SE line of M. Cummings Sur. ..... Rig.
United North & South Dev. Co.'s No. 2 Stoddard, 25 ft. each way out of NW cor. of Lot 19, Buckeye Townsite ..... Standing partly rigged up.
United North & South Dev. Co.'s No. 1 St. L. & B. M. "Y," 200 ft. S of main line of RR and 200 ft. NE of SW fork of "Y" in townsite. J. C. Keller Sur. ... Drlg. shale 7,050 ft.

MONTGOMERY COUNTY

C. J. Daniels' No. 1 A. H. Salls, Wm. Barker Sur., 390 ft. from E line, 400 ft. from N line of W 36 acres of Salis tract ..... Drlg. 1,850 ft.
Mound Creek Oil Co.'s No. 1 Sealey, 3,751 ft. E and 5,088 ft. N, from SW cor. of M. Cartwright Sur. in John Sealey Sur. ..... Drlg. shale 3,010 ft.
A. H. Parsons et al's No. 3 Drought, Kronknite Sur., 3,000 ft. N, 100 ft. E of NW cor. of A. B. Hill 44¼ acres ..... S.D. 3,850 ft.
R. L. Sprinkle's No. 1 Rohlfs, 500 ft. out of SW cor. of H. Proneus Sur. ..... S.D. 2,722 ft.
Sutton-Hawkins' No. 1 Foster, Hosea de la Garza Sur., 3,333 ft. N, 1,320 ft. E of NE cor. of W. J. Johnson 100-ac. tract ..... S.D. 4,287 ft.

NEWTON COUNTY

L. A. James et al's No. 1 Price, T.&N.O. Sur., 1,000 ft. from W line, 500 ft. from N line of tract ..... Standing 2,240 ft.

POLK COUNTY

Anderson et al's No. 1 Duke, Peter J. Manard Sur., 330 ft. out of NW cor. of 235-ac. tract ..... S.D. 3,948 ft.
Harrison & Abercrombie's No. 1 Carter (588-ac. lease), N 60 deg. E 1,151 ft. and N 50 deg. 145 ft. out of NW cor. of John Sweeney Sur. ..... S.D. 4,750 ft.
Koch & Stevens' No. 1 Ruth Lawrence, Castallian Sur., 300 ft. from W line, 790 ft. from S line of 54-ac. tract ..... Washing to bottom 2,683 ft.
Toner & Purdy's No. 1 Martha Roberts, Joaquin T. De Rumayor Sur. ..... Cored sandy shale showing oil 5,020-30 ft; top Cockfield 5,030 ft.

REFUGIO COUNTY

Gulf Prod. Co.'s No. 2 J. O'Connor (W.O.), C.E.P.I.&M. Co. Sur. No. 40, 1,200 varas from S line, 1,500 varas from E line of tract ..... S.D. 6,378 ft.
Gulf Prod. Co.'s No. 3 O'Connor, C.E.P.I.&M. Co. Sur., No. 133, 6,225 ft. SW along SE line from NE cor. of John O'Connor land, thence 2,639 ft. NW at right angles ..... Derrick.
Humble O. & R. Co.'s No. 3 O'Connor, Florentine Rice Sur., 13,757 ft. from S line at right angles, 3,412 ft. from E line at right angles of 5,545-ac. ranch ..... Drlg. shale 5,976 ft.

SAN JACINTO COUNTY

Weaver et al's No. 1 Delta Land & Timber Co., 1,400 ft. NE of SW line of James W. Robertson Sur., and 800 ft. at right angles ..... No report.

TRINITY COUNTY

C. M. Beckner's No. 1 Gibson, Wm. Beasley Sur., 600 ft. S along E line of survey and 150 ft. W at right angles ..... T.D. 1,192 ft; plugged to 989 ft.

TYLER COUNTY

Republic Prod. Co. and Houston Oil Co.'s No. 1 Sam Jeffcoat, E. Thompson Sur., 467 ft. N and E from SW cor. of 100-ac. tract ..... Derrick.
Republic Prod. Co. and Houston Oil Co.'s No. 1 Kirby, E. Thompson Sur., 467 ft. N and E from NE cor. of Sam Jeffcoat 100 acres ..... Drlg. gumbo 506 ft.
Republic Prod. Co. and Houston Oil Co.'s No. 2 Kirby, E. Thompson Sur., 160 ft. out of SE cor. of 128-ac. tract ..... Derrick.
Republic Prod. Co. and Houston Oil Co.'s No. 1 Kirby-McShane, 467 ft. S and W of most northerly NE cor., B.B.B.&C. Sur. No. 17 ..... Drlg. shale 5,127 ft.

VICTORIA COUNTY

Gulf Prod. Co.'s No. 3 Keeran Ranch, Martin DeLeon Sur., 1,320 ft. NW of No. 1 ..... Drlg. shale 6,667 ft.
Slick-Seeligson Corp.'s No. 2 McFaddin (D.D.), J. Varian Sur., 1,100 ft. NE of SW line, 635 ft. E of railroad.. T.D. 6,810 ft; plugged to 5,100 ft; comp. gas well.
The Texas Co.'s No. 6 McFaddin, 5,600 ft. S 15 deg. W and 450 ft. N 75 deg. W from E or NE cor. of Andrew J. Gary Sur. ..... Rig.
Quintana Oil Co.'s No. 1 McCormic, 500 ft. from SW line, 500 ft. from NW line of S.A.&M.G. Sur., Sec. 3, in most westerly NW cor. ..... Drlg. shale 4,550 ft.
Union Oil Co.'s No. 2 Keeran, Martin DeLeon Sur., 500 ft. E of E line of Gulf lease and 1,900 ft. N of railroad ..... Drlg. shale 6,635 ft.

WALKER COUNTY

Hart Oil Co.'s No. 1 Thompson, Jose Ortega Sur., 1,265 ft. S, 1,876 ft. W of SW cor. of J. B. Gibson 71-ac. tract ..... S.D. 2,100 ft.

WALLER COUNTY

Birdwell et al's No. 1 Robertson, John Baker Sur., 1,625 ft. from S line, 450 ft. from W line of 64-ac. tract ..... Derrick.

WASHINGTON COUNTY

Yequa Oil Co.'s No. 18 Pomacal, S. M. Williams Sur., 1,282 ft. from W cor. of Shuls 44-ac. tract, thence 123 ft. NW at right angles ..... T.D. 1,515 ft.

WHARTON COUNTY

Herman Heep's (was Dayvault-Tyler-Gardner's) No. 1 Dayvault, Wm. Kincheloe Sur., 200 ft. SW, 600 ft. SE of N cor. of 298-ac. tract ..... Drlg. shale 4,568 ft.
Pure Oil Co.'s No. 1 Stewart, 2,419 ft. NW, 1,650 ft. NE of S cor. of Sec. 25, Morris & Cummings Sur. ..... Drlg. gumbo and lime 3,161 ft.
Smith & Daniels' No. 1 Mitchell, H.&T.C. Sur. No. 8, 330 ft. from NE line of NE 80-ac. tract in center of tract NW and SE ..... Drlg. shale 6,453 ft.
Steed Prod. Co.'s No. 1 Tucker, 310 ft. W, 50 ft. N of NE cor. of S½ of SW¼ of Sec. 55, E.T.R.R. Sur. .... Coring 4,288 ft; cored sand showing oil and gas 4,270-75 ft.

SOUTH LOUISIANA

BEAUREGARD PARISH

Beaver Pet. Co.'s No. 1 Long Bell, 755 ft. S and 155 ft. E of NW cor. NW NW Sec. 34-2s-8w ..... Derrick.
DeRidder Dev. Co.'s No. 1 McMahon, 200 ft. W, 150 ft. S of NE cor. of NW Sec. 32-2s-9w ..... Standing 1,286 ft.
Trapp & Turnbull's No. 1 Long Bell, 102 ft. N, 227 ft. W, out of SE cor. SE SW Sec. 26-2s-10w ..... Spudded.
Trapp & Turnbull's No. 1 Roberts, 600 ft. W, 150 ft. S of NE cor. NW NE Sec. 6-3s-10w ..... Location.

CALCASIEU PARISH

Cannon & Hughes' No. 1 J. S. Reed, Sec. 18-10s-12w..... Derrick.
I. R. Irvine et al's No. 1 A. D. Mimms, 741 ft. N, 741 ft. W of SE cor. SE NE Sec. 20-9s-7w ..... No report.

JEFFERSON DAVIS PARISH

B. D. Finly's No. 1 Clarphy Lognion, SW NW Sec. 32-10n-4w ..... Cmtd. surface csg. 510 ft.
Humble O. & R. Co.'s No. 1 Devilbiss, 1,650 ft. S, 250 ft. W of NE cor. of Sec. 14-9s-4w ..... Drlg. sand 3,914 ft.

LA FOURCHE PARISH

Lehulu Oil Co.'s No. 1 La. Fourche Land Co., 150 ft. out of SE cor. NW NW Sec. 25-18s-22e ..... Spudded and S.D.

PLAQUEMINES PARISH

The Texas Co.'s No. 7 Garden Island ..... No report.

ST. BERNARD PARISH

Cook Drlg. Co.'s No. 1 Delecroix farm ..... Sandy shale 5,090 ft.

TERREBONNE PARISH

The Texas Co.'s No. 7 Calliou Island, 300 ft. S, 300 ft. W of NE cor. Sec. 19-23s-20e ..... Cap rock 2,825 ft.
The Texas Co.'s No. 7 State-Dog Lake ..... Drlg. shale 1,021 ft.
The Texas Co.'s No. 17 State-Lake Barre, 1,476 ft. W, 626 ft. S of NW cor. Sec. 20-21s-20e ..... No report.
The Texas Co.'s No. 4 Lake Barre-L.L.&E., 3,803 ft. S, 2,075 ft. W of NW cor. Sec. 30-21s-20e in Sec. 36-21s-19e ..... Sand 3,985 ft.
The Texas Co.'s No. 8 Lake Pelto-State, 925 ft. S and 628 ft. E of NW cor. of Sec. 9-23s-18e ..... Location.

VERMILLION PARISH

Shell Pet. Corp.'s No. 1 Herbert, 2,310 ft. W, 330 ft. N of SE cor. Sec. 10-15s-1e ..... Drlg. sandy shale 2,813 ft.

VERNON PARISH

R. E. Kay, tr.'s No. 1 Willis, 350 ft. N and 400 ft. E of SW cor. SE SE Sec. 32-3n-9w ..... Location.
Minerals Division Llano Co.'s No. 1 Llano Del Rio, 543 ft. E, 300 ft. S of NW cor. NW Sec. 34-2n-9w ..... No report.

Wildcat Operations in Louisiana-Arkansas

(Continued from Page 45)

State Drlg. & Prod. Co.'s No. 1 Wemple, 330 ft. N and E, SW cor. NW SW Sec. 14-12-11 ..... Drlg. shale and shell 1,510 ft.
Warren & Craig's No. 1 J. A. Wagner, 150 ft. S and W from C, Sec. 5-12-14 ..... Arranging to set 6-in. 2,820 ft.
Jack Whitson's No. 1 Sanders, 330 ft. N and E, SW cor. Sec. 19-11-13 ..... Tested dry; top Blossom 2,025 ft.; S.D. for csg.; claim 4-ft. sand showing oil; cmtd. 6-in. 2,713 ft; 500 ft. fluid in hole; C.O. sand.

GRANT PARISH

A. W. Phillips, tr.'s No. 1 Cameron, 300 ft. N, 200 ft. E, SW cor. SW NW Sec. 26-7-3w ..... Cmtd. 10-in. 60 ft; S.D.
O. Robichaux's No. 1 T. M. Bradford, 1,870 ft. E, 214 ft. S, NW cor. Sec. 16-9n-1e ..... Derrick.
H. H. Temple's No. 1 Edenborn Est., 2,640 ft. E, 550 ft. S, NW cor. Sec. 20-7-3w ..... Derrick pattern.

H. H. Temple's No. 1 Guaranty State Bank, 300 ft. E. 300 ft. S, NW cor. Sec. 9-5-1 ..... Location.

MOREHOUSE PARISH

Feasel & Kaill's No. 1 Davenport, Sec. 28-21-4e ..... S.D. 2,510 ft.
H. G. Samson's No. 1 Barnes & Sullivan, NE cor. SW Sec. 12-21-7 ..... Rigging up.
H. W. Snowden's No. 1 Meyers, 330 ft. S and E, SW cor. NE NE Sec. 15-22-7e ..... S.D. 30 ft.

NATCHITOCHES PARISH

Allender & Rasmussen's No. 1 Cane River, 330 ft. N and W, SE cor. Sec. 61-6n-5w ..... S.D. 100 ft.
W. M. Coates' No. 1 Ross Olive, Sec. 10-9-10, 660 ft. S and E from cen. of Sec. ..... S.D. fuel, 2,150 ft.
J. R. Oil Co.'s No. 1 Hankins et al, Sec. 67-10-7 ..... S.D. 670 ft.
Natchitoches Pet. Co.'s No. 1 Edenburg, 2,240 ft. W, 1,330 ft. S, NE cor. Sec. 4-11-6w ..... Reaming to bottom; T.D. 2,600 ft.
Sampson et al's No. 1 Friedman estate, 405 ft. N, 428 ft. E SW cor. Friedman estate in Sec. 52-7-6 ..... Moving in rig.
Texana Oil Co.'s No. 1 Clark-Morris Lbr. Co., 878 ft. N, 660 ft. E, C, Sec. 23-5-8 ..... Set 6⅝-in. 3,360 ft.; tested S.W. 3,475 ft.

OUACHITA PARISH

Inabnet & Pipe's No. 1 Van Horn, 1,980 ft. N, 660 ft. E, C Sec. 14-18-5 ..... Rig up; W.O.
Millhivan Gas Corp.'s No. 1 W. Va. L. & T. Co., 1,980 ft. E, 1,320 ft. N, center Sec. 10-17-5e ..... Location.
Monroe Oil & Royalties Co.'s No. 1 Thieler, 150 ft. N and E, SW cor. SE NW Sec. 34-18-2e ..... S.D. 2,575 ft.

RAPIDES PARISH

Evers & Collingsworth's (was A. G. Beck et al) No. 1 Hickman-Simmons Lbr. Co., 330 ft. S, 330 ft. E, NW cor. Sec. 40-4-1e ..... Began drlg. Jan. 24; drlg. 200 ft.
Pet. Industries, Inc.'s No. 1 Lee Lbr. Co., 330 ft. N, 300 ft. W, SE cor. NW SE Sec. 13-5n-2e ..... Derrick.

RED RIVER PARISH

Edward & Clay's No. 1 Delta Pecan Co., 1,600 ft. N, 450 ft. E, SW cor. Sec. 27-13-11 ..... S.D. 1,700 ft.
H. M. Jones' No. 1 A. N. Sample, 330 ft. S, 330 ft. E, NW cor. Sec. 10-14-11 ..... Derrick.
G. T. Shaw et al's No. 2 Wilkinson, 330 ft. N, 460 ft. W, SE cor. NE SE Sec. 4-12-10 ..... 700 ft. oil in hole; fishing swab.

RICHLAND PARISH

Humble Prod. Co.'s No. 1 fee, SW NW Sec. 11-14-6 ..... Location.

SABINE PARISH

Craft & Primm's No. 1 C. Alford, 720 ft. S, 460 ft. E, NW cor. SW NW Sec. 18-7-10 ..... Cmtd. 6-in. top marl, 2,537 ft.; drlg. chalk 2,808 ft.
Hills & Dumas' No. 1 Pickering Lbr. Co., SE SE Sec. 12-4-13 ..... Moving in rig.
Flinchbaugh & Myers' No. 1 Aaron, 250 ft. S and E, NW cor. Sec. 33-9-13 ..... Rigged up on second hole; W.O.
R. L. Gay, tr.'s No. 1-A Long Bell Lbr. Co., 430 ft. S, 200 ft. W, NE cor. NW NW Sec. 10-6-13 ..... Cored hard lime and shale 7,109 ft.
R. T. Henderson's No. 1 Bistrunk, 460 ft. N, 150 ft. W, C, Sec. 9-9-13 ..... Cmtd. 6-in. 1,670 ft; bailed dry 1,-999 ft; bailing to test 1,999 ft.
Hells et al's No. 1 Sabine State Bank, 350 ft. N and W, SE cor. SW SW Sec. 28-8-11 ..... Cmtd. 6-in. top marl, 2,236 ft.; bailed dry; drlg. 2,385 ft.
Ab Jones' No. 1 Garcia, 200 ft. S and W, NE cor. NW SE Sec. 4-7-13 ..... T.A. 2,070 ft.
G. B. Jordan's No. 1 Dew, 330 ft. N, 340 ft. E, SW cor. SW SE Sec. 34-8-11 ..... Cmtd. 6-in. 2,351 ft; 500 ft. fluid; arranging acid test; T.D. 2,-635 ft.
G. W. Langley et al's No. 1 Peavy-Wilson Lbr. Co., 330 ft. S and W, NE cor. Sec. 16-6-9 ..... Derrick.
Geo. LeGrand's No. 1 McGough, 300 ft. S, 300 ft. E, NW cor. SW NW Sec. 2-3-10 ..... S.D. 2,440 ft.
C. D. Lee, tr.'s No. 1 Whitney, 330 ft. N and W, SE cor. NW NE Sec. 13-9-14 ..... S.D. 1,715 ft.
Ben Merritt's No. 1 Lucina, 400 ft. N, 378 ft. E, SW cor. SW NW Sec. 4-8-13 ..... Derrick.
H. W. Perritt's No. 2 Brown Lbr. Co., 519 ft. S, 455 ft. W, NE cor. NW NE Sec. 31-8-10 ..... Cmtd. 6-in. top marl 2,529 ft; tested dry 2,600 ft; S.D. repairs 2,604 ft; T.D.
Roy Raines et al's No. 1 Beard, 720 ft. E, 700 ft. N, SW cor. SW SE Sec. 6-8-10 ..... S.D. 1,200 ft.
Reeves & McNeely's No. 1 Ponder, 336 ft. N and W from C, Sec. 16-7-11 ..... Began drlg. Nov. 7; cmtd. 10-in 31 ft.
Thornton et al's No. 1 S. S. Martines, 355 ft. S, 330 ft. W, NE cor. SE NE Sec. 4-7-13 ..... S.D. 2,048 ft.
Otis A. Roberts' No. 1 Sabine Lbr. Co., 224 ft. S, 481 ft. W, NE cor. SW NE Sec. 5-7-13 ..... S.D.; W.O. 2,500 ft.
Roberts & Sledge's No. 1 La. Long Leaf Lbr. Co., 290 ft. N, 468 ft. E, SW cor. NE SE Sec. 29-9-10 ..... Began drlg. Jan. 27; 10-in. 37 ft; fishing bit 585 ft.
Roberts & Sledge's No. 2 Sabine Lbr. Co., 803 ft. W, 794 ft. N, SE cor. SE SW Sec. 5-7-13 ..... W.O.S.R. 2,480 ft.
Roshko & LaBane's No. 1 Maines, 427 ft. E, 114 ft. N, SW cor. SE SE Sec. 35-8-11 ..... S.D. 1,650 ft.

CONVERSE DISTRICT

Alford & Cleary's No. 1 Jackson, 330 ft. N and E, SW cor. SE NW Sec. 10-9-13 ..... Location.
Alford & Cleary's No. 1 Patrick, 330 ft. S and W, NE cor. SW NE Sec. 11-9-13 ..... Location.
Cloud & Bolin's No. 1 Bowman-Hicks, SE cor. NE NE Sec. 26-9-13 ..... Drlg. lime and shale 2,810 ft; arranging to deepen.
Evans Bros.' No. 1 Cranford, 300 ft. S, 300 ft. W NE cor. SE SE, Sec. 30-9-13 ..... Cmtd. 8-in. top marl, 1,482 ft.; bailing to test 14-ft. limey shale; T.D. 1,504 ft; (C.D.).
H. P. Key's No. 1 T. J. Paul, 120 ft. S, 110 ft. W, NE cor. Blk. 35, Converse townsite in Sec. 10-9-13 ..... Location.
Lambert et al's No. 1 Edwards, 300 ft. S and E, NW cor. SW NW Sec. 29-9-13 ..... Began drlg. Jan. 28; cmtd. 12¾-in. 40 ft; drlg. 100 ft.
H. C. Lessenger's No. 1 Bowman-Hicks, 330 ft. S, 330 ft. E, NW cor. Sec. 13-9-13 ..... Derrick.
Lee & Burnett's No. 1 Burckett, 330 ft. N and W, SE cor. NW SW Sec. 10-9-13 ..... Tested dry 1,795 ft; W.O.
Hy Rockmill's No. 1 Cassell, 330 ft. S, 330 ft. W, NE cor. Sec. 35-9-14 ..... Derrick.
Chief Oil Co.'s (was Rockmill et al's) No. 1 Bowman-Hicks, 330 ft. S and W, NE cor. NW Sec. 36-9-14 ..... Tested dry; S.D. 1,681 ft.
Nick Barbare's No. 1 Ryals, 330 ft. S and E, NW cor. Sec. 27-9-13 ..... Cmtd. 6-in. 1,515 ft.; top sand 1,535 ft; tested dry; W.O.; T.D. 1,555 ft.
Rockmill et al's No. 1 Patrick, 330 ft. S, 330 ft. E, NW cor. NE NW Sec. 21-9-13 ..... Began drlg. Jan. 29; 12¾-in. 40 ft; drlg. 100 ft.
H. M. Self's No. 1 Paul, 330 ft. N and W, SE cor. NE SW Sec. 9-9-13 ..... Derrick.
Service Drlg. & Royalty Corp.'s No. 1 Whitney Corp., 330 ft. N and W, SE cor. Sec. 32-10-13 ..... S.D.; W.O. 2,200 ft.
Ben Youngblood et al's No. 1 Burkett, 330 ft. S and W, NE cor. NE NW Sec. 10-9-13 ..... Derrick.
Roshko & Labarre's No. 1 Maines, 427 ft. E, 114 ft. N, SW cor. SE NE Sec. 35-8-11 ..... Fishing for bit; T.D. 1,672 ft.
Sabine Prod. Co.'s No. 1 Whiting Corp., 150 ft. N and E, SW cor. Sec. 4-9-13 ..... Top marl 1,470 ft. and cmtd. 6-in.; drlg. 1,730 ft.; tested S.W., small show gas 2,134 ft; S.D. 2,207 ft.
Skidmore & Mise's No. 1 Stoker, 440 ft. N, 335 ft. E, SW cor. SE NW Sec. 33-8-10 ..... Junked 1,600 ft; arranging for new hole.
Southland Drlg. Co.'s No. 1 Frost Lbr. Co., 330 ft. N and W, SE cor. NE NE Sec. 13-9-11 ..... Cored liner; S.G.; arranging core; T.D. 2,459 ft.
Triangle Drlg. Co.'s No. 1 La. Long Leaf Lbr. Co., 330 ft. N and W, SE cor. Sec. 11-6-11 ..... S.D. 4,013 ft.
W. M. Ungerman's No. 1 F. Cross, 53 ft. S, 146 ft. W, NE cor. SW SE Sec. 25-8-11 ..... Cmtd. short string 4½-in. 2,423 ft; arranging test 2,635 ft.
Zwolle Prod. Co.'s (was Baird Bros.) No. 1 Tatum, SW NE Sec. 25-8-13 ..... Drlg. 1,750 ft.

TENSAS PARISH

H. V. Schumacker's No. 1 Currey, 1,320 ft. S, 1,320 ft. E, NW cor. Sec. 39-11-13 ..... Drlg. lime 3,673 ft.

UNION PARISH

E. S. Goens et al's No. 1 Frost Lbr. Co., 330 ft. S and E, NW cor. Sec. 17-22-2e ..... Cored sand showing gas 1,045-48 ft.; S.D. 1,050 ft.
W. D. Wingfield et al's No. 1 Union Sawmill Co., 330 ft. N and E, SW cor. Sec. 27-23-1e ..... Sidetracking bit and collar 1,650 ft; T.D. 2,835 ft.

VERNON PARISH

Earl Jones' No. 1 Willis, 350 ft. N 400 ft. E, SW cor. SE SE Sec. 32-3n-9w ..... S.D. 820 ft.
Llano Co-operative Colony's No. 1 fee, NW NE Sec. 34-2n-8w ..... Fishing reaming tool; T.D. 1,637 ft.

WEBSTER PARISH

J. E. Bundy's No. 1 Walker, 300 ft. S, 300 ft. W, NE cor. SE NW Sec. 11-18-10 ..... Derrick pattern.
R. E. Silvey et al's No. 1 Drake est., C NE NE Sec. 14-19-10 ..... Cmtd. 6-in. 2,817 ft; arranging test; show oil and gas; T.D. 2,-835 ft.

WEST CARROLL PARISH

Mamie S. McCurry's No. 1 Richard & Donnaw, 300 ft. N and E, SW cor. Sec. 13-19-9e ..... Began drlg. Jan. 23; 12¼-in. 204 ft; S.D. fuel 807 ft.

WINN PARISH

P.V.T. Oil Co.'s No. 1 Southern Paper Co., 150 ft. S and W, NE cor. SW Sec. 28-13-3 ..... S.D. for 8-in. csg. 1,050 ft.

Arkansas

CLEBURNE COUNTY

Frank S. Craver et al's No. 2 Doniphan Lbr. Co., 700 ft. N, 200 ft. E, SW cor. SW Sec. 34-11-9 ..... Cmtd. 8¼-in. 3,014 ft; drlg. rock 3,490 ft.

COLUMBIA COUNTY

Kendall Oil Co.'s No. 1 Fullenweider, 300 ft. S and E, NW cor. NE NE Sec. 13-17-22 ..... Cmtd. 6-in. 2,460 ft.; claim show oil and gas 2,520 ft.; bailed down 1,100 ft; bailing S.W. 2,-520 ft.
Allen E. Smith, tr.'s No. 1 J. M. Smith Est., 450 ft. N, 200 ft. E, SW cor. SE NW Sec. 5-16-18 ..... Derrick.

HEMPSTEAD COUNTY

A. G. Bagnell's No. 1 Trottner & Rhinehart (was reported Rhinehart & Trottner's No. 1 C. H. Jones), 330 ft. N, 330 ft. E, SW cor. SW SW Sec. 2-13-26 ..... Derrick.

JEFFERSON COUNTY

R. V. Harrell et al's No. 1 McGoughey NW cor. Sec. 22-7-10 ..... S.D.; W.O. 512 ft.

LAFAYETTE COUNTY

Chas. McDonald's No. 1 Allen, 400 ft. N and W, SE cor. SE SW Sec. 2-19-26 ..... Arranging D.S. test; small S.G.; T.D. 1,537 ft.
Sam E. Wilson, Jr.'s No. 1 Smith, 330 ft. N and E, SW cor. NW SE Sec. 24-19-25 ..... Derrick.

LINCOLN COUNTY

Lawrence M. Cook, tr.'s No. 1 McGhee Planting Co., 420 ft. S, 220 ft. W, NE cor. NE SW ..... Drlg. 3,450 ft.

LITTLE RIVER COUNTY

American Portland Cement Co.'s No. 1 fee, 150 ft. S and E, NW cor. SW NE Sec. 21-12-32 ..... Cmtd. 10-in. 100 ft; drlg. 1,000 ft.
M. E. Sanderson's No. 1 Hale, 1,300 ft. E, 800 ft. N, SW cor. SE SE Sec. 22-12-29 ..... S.D. 1,405 ft.

MILLER COUNTY

Baker & McMurray's No. 1 Andrew Rose, 150 ft. S and W, NE cor. NE NW Sec. 4-16-26 ..... Recmtd. 10-in. 210 ft.
Capt. E. Byrd's No. 1 Miller Land & Lbr. Co., 1,320 ft. N and W, SE cor. Sec. 29-18-27 ..... Derrick.
Johnson & Burnham's (was John M. Burnham's) No. 1 E. L. Beck, 150 ft. N and E, SW cor. SW NE Sec. 33-15-26 ..... Began drlg. Jan. 28; 10-in. 203 ft; drlg. 2,050 ft.
John DeGrozier's No. 1 Andrew Rose, 150 ft. S and E, NW cor. N½ N½ NW NW Sec. 4-16-26 ..... Location.
John DeGrozier's No. 2 Andrew Rose, 155 ft. S and E, NW cor. N½ NE NE Sec. 4-16-26 ..... Location.
Duluth-Ark. Oil Co.'s No. 1 H. E. Beck, 150 ft. N, 170 ft. E, SW cor. NW SW Sec. 34-15-26 ..... S.D. 3,100 ft.
Duluth-Ark. Oil Co.'s No. 1 Price, NW cor. NE Sec. 18-16-25 ..... Derrick.
Fitzwater et al's No. 1 C. J. Nersen, SW cor. SE SW Sec. 20-15-27 ..... S.D. 1,960 ft.
Fitzwater et al's No. 1 Fouke, 150 ft. S and W, NE cor. Sec. 11-17-27 ..... Cmtd. 12¼-in. 105 ft; S.D.
Lee L. Foster's No. 1 Geo. Jones, 660 ft. N, 200 ft. W, SE cor. NW NW Sec. 29-16-26 ..... S.D. 1,240 ft.
J. T. Humphrey's No. 1 Grace, C SW SW Sec. 9-15-27 ..... Derrick.
Jenkins Bros.' (was Roy Jenkins et al's) No. 1 B. F. Smith, 330 ft. W, 330 ft. N, SE cor. SE SE Sec. 32-15-26 ..... D.S. test 3,010 ft; S.W.; W.O.
Jenkins Bros.' No. 2 Smith, 150 ft. S and W, NE cor. SE SE Sec. 32-15-26 ..... Location.
Jenkins Bros.' No. 3 Smith, 150 ft. S, 710 ft. W, NE cor. SE SE Sec. 32-15-16 ..... Location.
Jenkins Bros.' No. 4 Smith, 150 ft. S and E, NW cor. SE SE Sec. 32-15-26 ..... Location.
Magnolia Oil Co.'s No. 1 E. V. Olivet, 150 ft. S, 646 ft. E, NW cor. NE NE Sec. 4-16-26 ..... Derrick.
Bob Manziel's No. 1 B. F. Smith, 150 ft. N and W, SE cor. S½ S½ NE NE Sec. 33-15-26 ..... Coring red beds 2,917 ft.
Bob Manziel's No. 2 Smith, 150 ft. N, 660 ft. W, SE cor. NE SE Sec. 33-15-26 ..... Location.
Bob Manziel's No. 3 Smith, 150 ft. N and E, SW cor. NE SE Sec. 33-15-26 ..... Location.
Molar Oil Club's No. 1 A. M. Gibson, NW cor. SW Sec. 30-15-27 ..... Derrick.
C. H. Nelson et al's No. 1 Rose, 155 ft. S, 155 ft. W, NE cor. SE NW Sec. 4-16-26 ..... W.O. 2,971 ft.
W. E. Noel et al's No. 1 Dickson hrs., 1,980 ft. W, 660 ft. S, NE cor. Sec. 11-20-27 ..... S.D., W.O. 2,600 ft.
R. M. Olds' No. 1 E. D. Olivet, 150 ft. S and W, NE cor. NE SW Sec. 4-16-26 ..... Location.
Baker & McMurray's (was J. D. Reynolds') No. 1 E. L. Beck, 450 ft. E, 250 ft. N, SW cor. SW SE Sec. 33-15-26 ..... Derrick.
J. D. Reynolds' No. 1 B. F. Smith, 150 ft. N and W, SE cor. SE SW Sec. 33-15-26 ..... Location.
John C. Rogers' No. 1 Price, 330 ft. S, 400 ft. E NW cor. NW NW Sec. 17-16-25 ..... Rig up; S.D.
E. H. R. Sabens' No. 1 E. V. Olivet, 150 ft. S, 997 ft. W, NE cor. NE SW Sec. 4-16-26 ..... Location.
Simon & Birdwell's (was C. E. Starr's) No. 1 Barker, 330 ft. S, 150 ft. E, NW cor. NW SE Sec. 31-17-26 ..... Began drlg. Jan. 23; 10-in. 197 ft.
Sorrells & Tidwell's No. 1 Roy McCowan, 660 ft. S and E, NW cor. NW SE Sec. 22-15-23 ..... S.D.; 4-ft. sand 2,747 ft.
Stephens, Byers & Sartain's No. 1 Lowe, 600 ft. S, 200 ft. E, NW cor. SE NW Sec. 14-16-27 ..... Arranging test; 2-ft. sand 3,052 ft.
A. C. Taylor's No. 1 Williams, 150 ft. N and E, SW cor. SW NE Sec. 5-16-26 ..... Location.

OUACHITA COUNTY

Chas. Steele et al's No. 1 Anderson, 155 ft. S, 150 ft. E, from center Sec. 36-12-18 ..... T.D. 1,615 ft.

PRAIRIE COUNTY

Powell Creek O. & G. Co.'s No. 1 Kloss, NE SW Sec. 3-4n-6w ..... Partly rigged up and S.D.

UNION COUNTY

Graves, Ferguson & Fuller's No. 1 Patterson, SW cor. NE NE Sec. 31-19-16 ..... Began drlg. Dec. 23; cmtd. 10 in. 103 ft; S.D.

Mamie McCurry et al's No. 1 Rowland, 200 ft. N and E, SW cor. Sec. 9-19-11 ..... Derrick.

Wilson & Chapman's No. 1-A D. Norman, 330 ft. S and E, NW cor. N½ NE SE Sec. 2-18-13 ..... S.D. 1,678 ft.

WOODRUFF COUNTY

S. F. Thompson's No. 1 Rosser, 500 ft. N and E, SW cor. SE SE Sec. 7-5n-2w ..... S.D.; W.O. 1,530 ft.

YELL COUNTY

(Cable tools)

Rainbow Oil & Gas Co.'s No. 1 Barrett SE cor. NE NE Sec. 16-5n-24 ..... S.D. 278 ft.

East Texas

BOWIE COUNTY

Roy Anderson et al's No. 1 Breckenridge, center 465-ac. Breckenridge tract in Nancy Dycas Sur. ..... Coring 3,030 ft.

Tom Bell et al's No. 1 Mars, 1,800 ft. N, 2,160 ft. W, NE cor. 465-ac. tract in O. D. Watson Sur. ..... Drlg. shale 1,616 ft.; (C.D.).

Lanford et al's No. 1 W. W. Whybark, 200 ft. S, 200 ft. W, SW cor. J. H. Dyer Sur. ..... S.D. 2,248 ft.

CASS COUNTY

Davis & Digg's (now Joiner Pet. Co.'s) No. 1 Roy Bryan, SW cor. Roy Bryan 88-ac. tr., Albert H. Latimer Sur. ..... S.D. 2,860 ft.

C. E. Murdock's No. 1 First National Bank, Evans Watson Sur. ..... S.D. 4,390 ft.

HARRISON COUNTY

Flanagan & Foster's No. 1 Davidson, 330 ft. N, 330 ft. W, SE cor. T. P. Bullock Sur. ..... Began drlg. Jan. 14; 10-in. 112 ft; drlg. 960 ft.

Great Eastern Oil Co.'s No. 1 Rudd, Wm. Steele Sur. .... 10-in. 96 ft; 8-in. 846 ft; smd. S.G. 1,575 ft; cmtd. back to 1,275 ft.

A. E. Roscoe et al's No. 1 Vever Towell, NW cor. H. T. Edwards' 340 acres in Louis Watkins Sur. ..... Drlg. shale 3,703 ft.

MARION COUNTY

Baunoch Dev. Co.'s No. 1 Miller, 725 ft. N, 1,470 ft. E, SW cor. H. Fulgram Sur. (was Gist, Claunch & Dodson) ..... Washing to bottom; T.D. 4,585 ft.

Geo. Hindeman et al's No. 1 F. V. Lindsey, 2,500 ft. S most northerly N line, 3,555 ft. E most easterly W line, Alexander Albright Sur. ..... S.D.; W.O.; Georgetown lime 3,701 ft.

Starling & Preston's No. 1 Henderson, R. Bennington Sur. H.R.S. ..... Drlg. chalk 2,570 ft.

PANOLA COUNTY

Carter-Skidmore et al's No. 1 C. J. Wooten et al. 735 ft. N, 185 ft. E, SW cor. C. J. Wooten tract in P. Martin Sur. ..... Location.

Hampton Drlg. Co.'s No. 1 Lloyd Thompson, 330 ft. N, 330 ft. W, NW cor. C. Flanagan Sur. in Allen Leach Sur. ..... Location.

Root-Skinner's No. 1 Daniel, 400 ft. N and W lines, Mrs. Gerrell 100-ac. tr., SW cor. Isabel Hanks Sur. ..... S.D. for D.S. 740 ft.

J. L. Nelson et al's No. 1 J. Williams, 300 ft. S, 700 ft. W, NE cor. Williams' 67-ac. tr., James Hanks Sur... S.D. 3,055 ft.

RED RIVER COUNTY

Ajo Oil Co.'s No. 1 Nichols & Daniels, center S 780 acres of 1,800-ac. tract in Hugh B. Shaw Sur. ..... Location.

Concord Oil Co.'s No. 1 Dillahunty, 500 ft. N, 200 ft. W, SE cor. Robt. Glass Sur. ..... S.D. for fuel 2,827 ft. in lime.

L. S. Priest et al's No. 1 R. W. Peck, 500 ft. W, 900 ft. N, most southerly SE cor. 220-ac. tract in Abram Wagley Sur. ..... S.D. 1,302 ft.

SHELBY COUNTY

J. H. Francis' (now Bob Chew et al's) No. 1 John Mims, Mary Smith Sur. ..... Tested dry 2,842 ft; S.D. 3,438 ft

General Minerals Co.'s No. 2 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. D. S. Height Sur. ..... Cored lime 4,005 ft; arranging to plug back to 3,870 ft. to test gas show at 3,890-4,010 ft. in lime with streaks of shale.

Oil News' No. 1 Pickering, C. H. Patterson Sur. ..... Reaming 3,360 ft.

Neil Lease & Oil Well Synd.'s No. 1 W. P. Harvey, NW cor. W. P. Harvey 130 ac. in W. P. Harvey Sur. ..... Derrick pattern.

Prairie Creek Crude Co.'s No. 1 Ellington, 150 ft. and 200 ft. W from SE cor. 42-ac. tr., J. Burleson Sur. ... Arranging cmt. 4½-in..; T.D. 3,422 ft.

Ridgeway et al's (now Roy F. Smith's) No. 1 Polley, Dominguez Gonzales Sur., 2,180 ft. E of SW cor., 160 ft. N at right angles of Polley 457-ac. tract .... S.D. 2,045 ft.

Redberry et al's No. 1 Pickering Lbr. Co., 600 ft. N, 400 ft. E, SW cor. Jane Stoddard Sur. ..... S.D. 2,375 ft.

Gray & Dunbar's No. 1 C. A. Hayden, 600 ft. N and W, SE cor. 152-ac. tr. in D. T. F. Yordt Sur. ..... S.D. for wtr. 2,280 ft.

Louisiana-Arkansas Proven Areas

North Louisiana

BOSSIER—BELLEVUE AREA

Company, well, farm name, section and block—	Remarks:
H. I. Morgan's No. 2 Smith, 1,520 ft. N, 660 ft. W, SE cor., Sec. 32-19-11	Fishing D.S. 3,969 ft; red beds.

CADDO—RODESSA AREA

United Gas Public Service Co.'s No. 1 Levee Board, 1,980 ft. N, 1,320 ft. E, SW cor. Sec. 27-23-16 ..... Cmtd. 6⅝-in. 5,351 ft.

CADDO—BLANCHARD AREA

Louana O. & G. Co.'s No. 1 Carrie et al, 1,320 ft. W, 660 ft. S, NE cor. SE Sec. 32-19-16 ..... Tested estimated 5,000,000 ft. gas; arranging set 2½-in. tubing 2,745 ft; T.D. 2,771 ft.

Louana O. & G. Co.'s No. 1 Waskom, 660 ft. N and E, SW cor. Sec. 29-19-16 ..... Set 10-in. 60 ft.

Pyramid Oil Corp.'s No. 2 C. C. Wheeler, 660 ft. S, 250 ft. E, NW cor. Sec. 4-18-16 ..... Rigging up.

CADDO—HOSSTON

Caddo Prairie O. & G. Co.'s No. 1 Hawkins, C SE SW Sec. 14-22-15 ..... Began drlg. Jan. 20; 10-in. 100 ft; drlg. 900 ft.

Gibson Oil Co.'s No. 1 J. H. Dominick, 330 ft. S and W, NE cor. SW NE Sec. 31-23-14 ..... Derrick.

Magnolia Pet. Co.'s No. 20 Doan-Thigpen, 600 ft. S, 470 ft. W NE cor. SE Sec. 6-20-15 ..... Location.

DE SOTO PARISH

Abernathy et al's No. 1 J. M. Nabors, 2,485 ft. E, 1,185 ft. N, SW cor. Sec. 32-13-11 ..... Coring 2,375 ft.

SABINE PARISH—ZWOLLE

Alford & Avant's No. 1 J. J. Small, 124 ft. N, 420 ft. E, SW cor. NE NW Sec. 18-7-10 ..... Derrick.

J. H. Askew's No. 3 Henderson, 400 ft. S, 150 ft. E, NW cor. SW SE Sec. 31-8-10 ..... Derrick.

Baird Bros.' No. 3 Martinez, 1,012 ft. S, 907 ft. E, NW cor. NW SW Sec. 2-7-13 ..... Fishing tubing 2,410 ft.

C. W. Beene et al's No. 1 Cutrer, 200 ft. N and E, SW cor. NW Sec. 12-7-11 ..... Derrick.

Brown Lbr. Co.'s No. 1 fee, 330 ft. E, 330 ft. N, SW cor. NW NE Sec. 1-7-11 ..... Rigging up.

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VALVES-PIPE FITTINGS-FIRE HYDRANTS

Cameron Oil Co.'s No. 1 G. Martinez, 845 ft. E, 540 ft. N, SW cor. Sec. 3-7-13 ..... Cmtd. 6-in. 2,022 ft; T.D. 2,064 ft.
T. B. Carpenter's No. 1 Cutrer, 330 ft. S and E, NW cor. SE Sec., 15-7-11 ..... Cmtd. 6-in. 2,546 ft.
Corning Oil Co.'s No. 1 T. L. Andrios, 415 ft. E, 365 ft. S, NW cor. NE SE Sec. 15-7-11 ..... Old well drilled to 190 ft. by Tuffree et al; rigging up.
Continental Drlg. Co.'s No. 1 Leone est., 70 ft. N, 300 ft. W, SE cor. Sec. 31-3-13 ..... Top marl, 2,210 ft; S.D. waiting for csg.
Corporation Oil Co.'s No. 2 Eberle, SE SE Sec. 36-8-11.. Location.
Craig et al's No. 1 Ponder, 330 ft. N and E, SW cor. SE NW Sec. 15-7-11 ..... Began Dec. 12; S.D. 50 ft.
Crescent Drlg. Co.'s No. 1 Maibry, 660 ft. N and E, SW cor. SE NW Sec. 3-7-11 ..... Derrick.
Edwards & Hubler's No. 1 G. Martinez, 510 ft. S, 330 ft. E, NW cor. SW SW Sec. 3-7-13 ..... Derrick.
V. E. Hammons et al's No. 1 Travis, 540 ft. N, 150 ft. E, SW cor. NW SE Sec. 13-7-11 ..... S.D. chalk, 2,610 ft.
D. D. Holcomb's No. 2 Quayhagiew, 140 ft. N, 300 ft. E, SW cor. SE SE Sec. 11-7-11 ..... W.O.S.R. 2,652 ft.
M. L. Hunt's No. 2 Livingston, 330 ft. S and E, NW cor. SW NW Sec. 9-7-11 ..... Top marl 2,340 ft; cmtd. 6-in. 2,-330 ft; 1,500 ft. oil; W.O.S.R. after acid test; T.D. 2,396 ft.
Investors Prod. Co.'s No. 1 S. J. Williams, 660 ft. E, 660 ft. S, NW cor. Sec. 24-7-11 ..... Began drlg. Jan. 14; cmtd. 10-in. 40 ft; drlg. 2,000 ft.
H. M. Jones' No. 1 Raines, 300 ft. S, 150 ft. W, NE cor. NW NW Sec. 14-7-11 ..... Acid test 2,660 ft; 1,000 ft. oil in hole; W.O.S.R.
A. N. Landis' No. 1 La. Long Leaf Lbr. Co., 500 ft. S, 660 ft. W, NE cor. NE SW Sec. 29-8-10 ..... Rigging up.
Lion Oil Ref. Co., 104 ft. N and E, SW cor. SE NE Sec. 30-8-13 ..... Cmtd. 6-in. top marl, 2,271 ft.; used acid; arranging to deepen. 2,420 ft.
Lowery & Green's No. 1 Adair, 330 ft. N and W, SE cor. SE SW Sec. 19-8-11 ..... Derrick.
Martin et al's No. 1 Porter, 330 ft. S, 330 ft. W, NE cor. NW SW Sec. 30-8-11 ..... Derrick.
L. K. McGuffin's No. 2 Chadick, 200 ft. S, 200 ft. W, NE cor. NW SW Sec. 32-8-10 ..... Location.
H. C. Moulding's No. 1 Brumley, 330 ft. N, 330 ft. E, SW cor. NW NW Sec. 2-7-11 ..... Began drlg. Jan. 8; cmtd. 10-in. 41 ft.
Paul L. Miller's No. 2 Chadick, 550 ft. N, 430 ft. E, SW cor. SE NW Sec. 32-8-10 ..... Cmtd. 6-in. top marl, 2,547 ft.; used acid; swabbing to test; T. D. 2,750 ft.
C. D. Neff, tr.'s No. 2 Snell, 400 ft. E, 330 ft. N, SW cor. SE SE Sec. 9-7-11 ..... S.D.; S.O.; arranging acid test 2,-650 ft.
Nowlin & Cherry's No. 1 Turner, 100 ft. N, 330 ft. W, SE cor. Fractional NW NW Sec. 4-7-11 ..... Cmtd. 6-in. 2,252 ft; dry 2,347 ft; arranging acid test.
Pelican Nat. Gas Co.'s No. 19 La. Long Leaf Lbr. Co., 330 ft. N and E, SW cor. SE ..... Cmtd. 6-in. top marl 2,310 ft.
H. L. Patton's No. 1 Ponder, 330 ft. N and W, C Sec. 15-7-11 ..... Top marl 2,376 ft; S.D.
Perkins & Babbin's No. 1 Hopkins, 350 ft. S, 370 ft. W, NE cor. NE SW Sec. 11-7-11 ..... Cmtd. 6-in. top marl, 2,403 ft.; bailing to test; T.D. 2,572 ft.
Picayune Oil Co.'s No. 1 Porter, 330 ft. N and W, SE cor. NW SW Sec. 30-8-11 ..... Top marl 2,372 ft; top chalk 2,-388 ft; arranging 6-in. 2,395 ft.
Pugh-Hickman Drlg. Co.'s No. 1 Blackman, 330 ft. N and E, SW cor. NW NW Sec. 30-8-11 ..... Top marl 2,372 ft; top chalk 2,-388 ft; arranging to set 6-in. 2,395 ft.
Pugh-Hickman Drlg. Co.'s No. 2 Blackman, 330 ft. S, 330 ft. E, NW cor. Sec. 36-8-12 ..... Location.
Sam Riggs, tr.'s No. 1 Darby, N half SE Sec. 21-7-11 ..... Small S.O. on acid test; fishing for bailer; T.D. 2,556 ft.
Ritchey Prod. Co.'s No. 1 Stills, SE NW Sec. 26-8-12... S.D.; repairs, 1,510 ft.
Robertson Drlg. Co.'s No. 1 J. W. Hughes, 1,320 ft. W, C, Sec. 36-8-12 ..... Derrick.
Rotary Oil Corp.'s No. 1 Hale, 330 ft. S and E, NW cor. SW Sec. 1-7-13 ..... Tested 100 ft. oil, using acid; T. D. 2,440 ft; arranging retest with acid.
C. T. Ruffin's No. 1 Lilly, 545 ft. S, 300 ft. W, NE cor. NW NW Sec. 8-7-11 ..... Bailed dry on acid test; arranging pump; T.D. 2,376 ft.
R. M. Self's No. 1 Newton, 330 ft. S and W, NE cor. NE SE Sec. 1-7-11 ..... Rig up.
Scully & Beach's No. 4 Lafitte, 325 ft. E, 197 ft. S, NW cor. SW NW Sec. 13-7-11 ..... Derrick.
Scully & Beach's No. 5 Lafitte, 413 ft. E, 190 ft. W, NE cor. SW NW Sec. 13-7-11 ..... Arranging swab through tubing 150 ft. in oil; T.D. 2,492 ft.
Service Drlg. & Royalties Corp.'s No. 2 Smith, Sec. 13-7-11 ..... Arranging second acid test; T.D. 2,814 ft.
Ben F. Smith's No. 4 Turner, NE cor. NE NW Sec. 4-7-11 ..... Rigging up.
Simmons et al's No. 1 Fleming, E½ SE SE Sec. 11-8-13.. Rigging up.
Scully & Beach's No. 3 Lafitte, 1,030 ft. S, 134 ft. E, NW cor. Sec. 13-7-11 ..... W.O.S.R. 2,492 ft.
F. E. Stancil's No. 1 Ponder, 373 ft. S, 387 ft. E, NW cor. NE SE Sec. 10-7-11 ..... Bailing; acid test; lost bailer; T. D. 2,593 ft.
State Prod. Co.'s No. 1 Keaszle, 150 ft. N and W, SE cor. NW SW Sec. 4-7-13 ..... W.O.S.R. 2,427 ft.
State Prod. Co.'s No. 1 Liles, 150 ft. S and W, NE cor. SE SW Sec. 35-8-11 ..... Derrick.
State Prod. Co.'s No. 1 Babine Lbr. Co., 345 ft. N, 100 ft. W, SE cor. NW SW Sec. 3-7-13 ..... S.D. 2,427 ft.; 1,000 ft. oil.
The Texas Co.'s No. 1 C. E. Cooper, 495 ft. S, 175 ft. E, NW cor. NE SE Sec. 30-8-11 ..... Cmtd. 6-in. top marl, 2,304 ft.; bailing to test 2,354 ft.
The Texas Co.'s No. 1 Ponder, 1,490 ft. S, 300 ft. W, NE cor. Sec. 16-7-11 ..... Bailed small S.O. 2,365 ft.; dry; arranging acid test 2,678 ft.
E. M. Thomasson's No. 1 W. & H. Andries, 500 ft. N, 150 ft. W. center Sec. 33-7-11 ..... Cmtd. 6-in. 2,300 ft; top marl, 2,-575 ft; top chalk 2,690 ft; dry 2,750 ft; W.O.
J. H. Watt et al's No. 1 Pouder, 200 ft. S, 135 ft. W, NE cor. NW NE Sec. 15-7-11 ..... Derrick.
B. R. White et al's No. 1 Cooper, 330 ft. S and E, NW cor. SW NW Sec. 35-8-11 ..... Derrick.
B. R. White et al's No. 1 Stills, 620 ft. W, 305 ft. N, SE cor. NE NW Sec. 35-8-13 ..... Drlg. 1,395 ft.
Zwolle Prod. Co.'s No. 1 Tatum, 850 ft. E, 330 ft. N, C Sec. 21-8-12 ..... Drlg. 1,790 ft.

Arkansas

QUACHITA COUNTY—SMACKOVER

L. L. McDonald's No. 1 J. A. Robertson, 200 ft. S and E, NW cor. NE NW Sec. 35-15-16 ..... Rigging up.

UNION COUNTY—URBANA

Graves, Ferguson & Fuller's No. 1 Patterson, SW cor. NE NE Sec. 31-19-14 ..... Derrick.
Wilson & Chapman's No. 2 Emily King, Sec. 3-18-13, 150 ft. S, 150 ft. E, NW cor. NE NE ..... S.D. 1,730 ft.

East Texas

PANOLA COUNTY

Daisy O. & G. Co.'s No. 1 Rucks, John Palmer Sur. ..... S.D. 3,359 ft.

Mississippi

HINDS COUNTY

Geo. P. Adkins et al's No. 1 Woodland Hills, 400 ft. N and W, SE cor. NW NE Sec. 26-6-1e ..... Derrick.

RANKIN COUNTY

J. A. Baker et al's No. 2 Rankin Side Dev. Co., Sec. 6-5-3e ..... S.D. high wtr.; top chalk at 1,-461 ft.
J. A. Matson et al's No. 1 Warner, 1,100 ft. S, 200 ft. W, NE cor. W½ SE Sec. 14-5n-1e ..... Waiting on csg. 2,477 ft.

Wildcat Operations in Mississippi

AMITE COUNTY

Company, well, farm name, section and block—	Remarks:
Magnolia State O. & G. Co.'s No. 1 Anderson, C NE NW Sec. 14-3n-3e	S.D. 400 ft.
F. X. Gowans et al's No. 1 Effring, SE NE Sec. 13-1n-14e.	S.D. 184 ft.

COVINGTON COUNTY

Eastman Gardner Interest's (was Modisette Drlg. Co.) No. 1 Eastman-Gardner Lbr. Co., No. 1 Minerals fee, NE NW Sec. 29-9n-6w	Drlg. marl 1,400 ft.

HINDS COUNTY

Cleve Love's No. 2 Security Realty Co., 1,855 ft. N, 752 ft. E, SW cor. Sec. 26-6-1e	T.D. 2,447 ft; set 6-in.; drlg. plug
Love & Lancaster's No. 1 Elton Plantation, C SE Sec. 17-4n-1e	S.D. Eutow (Blossom) 5,050 ft.
National Gas Co. of Miss.' No. 1 M. C. Halder, 160 ft. E, 660 ft. N, SW cor. Sec. 18-4n-1e	S.D. for csg. 810 ft.

JASPER COUNTY

B. B. Jones' No. 1 Bank of Philadelphia, 660 ft. N and W, SE cor. Sec. 35-3n-13e	Drlg. pyrites 4,095 ft.

JACKSON COUNTY

Gulf Ref. Co. of La.'s No. 1 Danciger, 2,440 ft. S, 1,-130 ft. W, NE cor. Sec. 27-4s-8w	Began Dec. 6; core drlg.

LAMAR COUNTY

Chas. W. Gorr et al's No. 1 Jordan, NW cor. SW Sec. 1-2n-15w	Derrick.
Stauffer & Kouri's No. 1 Bond, SE NE Sec. 18-2n-14w	D.S. stuck 3,025 ft.

MONROE COUNTY

P. J. McAlpine's No. 1 Rye, Sec. 23-15s-17w	S.D. in lime 2,335 ft; high wtr.

NEWTON COUNTY

Bob Dalton's No. 1 Majure, 400 ft. N, 300 ft. E, SW cor. SE Sec. 25-4n-11e	Drlg. sandy shale 2,450 ft.

RANKIN COUNTY

Home Oil Prod. Corp.'s No. 1 So. Jackson Land Co., 85 ft. S, 130 ft. W, NE cor. NW SW Sec. 23-5n-1e	S.W. and abd 2,500 ft.
Love Pet. Co.'s No. 2 Int. Lbr. Co., 450 ft. S and E, NW cor. Sec. 24-4n-2e	Drlg. chalk 2,670 ft.
Majestic O. & G. Co.'s No. 1 Elton Lbr. Co., Sec. 10-4n-3e.	Derrick.

SCOTT COUNTY

M. U. Culley et al's No. 1 Owens, Sec. 2-8-9	S.D. 750 ft.

SUNFLOWER COUNTY

Miss. O. & G. Dev. Co.'s No. 1 School land, 330 ft. N, 330 ft. W, SE cor. SE NE Sec. 16-20-4	Began drlg. Jan. 15; drlg. 100 ft.

WEBSTER COUNTY

P. J. McAlpine's No. 1 Hensley, Sec. 15-21-11	Cored Tuscaloosa 1,800 ft; S.D.

WILKINSON COUNTY

Foster Creek Oil Co.'s No. 1 Foster Creek Lbr. Co., Sec. 13-2n-2w	Drlg. 600 ft.

Wildcat Operations in Alabama

BALDWIN COUNTY
(Cable tools)

Company, well, farm name, section and block—	Remarks:
H. H. Givens' No. 1 Ashman, Sec. 10-6-5e	Drlg. 500 ft.

CULLMAN COUNTY

C. V. Corey's No. 1 King, NE cor. NE NW Sec. 35-8-4w	S.D. 710 ft.

LAMAR COUNTY

De Soto O. & G. Co.'s No. 1 Gardner, NW NW Sec. 22-15s-16w	S.D.; shale 3,300 ft.

WASHINGTON COUNTY

South Ala. O. & G. Co.'s No. 1 Wilson, Sec. 26-1n-1w	S.D. in sand 2,959 ft.

Wildcat Operations in Southwest Texas

(Continued from Page 51)

Humble O. & R. Co.'s No. 1 Annie Hassler, 750 ft. from W line, 330 ft. from S line of lease in Samuel Wolfenberger Sur.	T.D. 1,975 ft; drlg.
Marts & Beavens' No. 1 Roy Rivers, 860 varas from SE lines, 54 varas from NE lines of Mrs. Lucy Rivers' 582-ac. Elizabeth Standifer Sur. 24	T.D. 1,830 ft; in Serpentine, 1,-820-30 ft; dry.
Properties Trading Co.'s No. 1 Henry Freitag, 400 ft. from SE line, 1,800 ft. from NE line of P. Conley Sur.	T.D. 2,234 ft; S.D.
Nelson Pruitt's No. 1 C. Lentz, 330 ft. from NE line, 2,050 ft. from SE line of 400-ac. tract in J. B. Lentz Sur.	T.D. 2,501 ft; waiting on csg.
H. Robertson's No. 1 Schmidt, 25 ft. from N line, 850 ft. from W line of D. H. Dyer Sur.	T.D. 185 ft; S.D.
Teas and Gant's No. 1 Mikulec, 330 ft. to NW and SW lines of tract in Wm. Barton Sur.	T.D. 1,340 ft; S.D.

BEE COUNTY

Nichols & Bruner's No. 1 Grover Heldenfels in John Bryan Sur., 891 ft. from S line, 1,950 ft. from E line of tract	T.D. 4,440 ft; S.D. in top of Jackson; showed gas at 4,365 ft.
W. C. Pool's No. 1 J. C. Wood, 150 ft. N along E line of H.&G.N. Sur. from NE cor. of Mary O'Connor lease, thence 450 ft. E at right angles	Rigged up.

BELL COUNTY

James Scoggins' No. 2 Warrick, 1,000 ft. to NW line, 2,400 ft. to NE line of 335-ac. tract in Ingram Sur.	T.D. 1,481 ft; fishing.

BEXAR COUNTY

C. I. Albertson's No. 1 Hoch, 750 ft. from S line, 650 ft. from W line of 339-ac. tract, in Jose Maria Baerera Sur.	T.D. 600 ft.; gas blow out and bridged.
Amsden-Ingersoll-Miller's No. 1 Strumberg, 450 ft. to W line, 1,020 ft. to N line of tract, 12 miles SW of San Antonio	T.D. 1,135 ft; waiting for pump.
R. S. Boling's No. 1 J. J. Appelt, 150 ft. from N and W lines of tract in M. Uriegas Sur.	T.D. 170 ft; drlg.
Motes-Campbell's No. 1 Pruitt, 550 ft. NE of Trussell's No. 1 Pruitt, 54 varas from E line of tract in Samuel McCollough Sur.	Rigging up.
Ethridge et al's No. 1 Bilhartz, 150 ft. to N and E lines of SE 100 acres of Bilhartz 360-ac. tract in F. Rolen Sur.	Moving in.
Robert C. Hill's No. 1 Schell, 1,300 ft. from N line, 1,100 ft. from W line of 161-ac. tract in Sec. 234, Perrotaux Sur.	T.D. 836 ft; abd.
Rollin V. Hill, Jr.'s No. 1 Max Boeck, 1,700 ft. from N line, 2,700 ft. from E line of tract in J. R. Shepherd Sur.	T.D. 406 ft; standing.
M. L. Howard's (Allen Park) No. 1 James Watson, 12 miles S from San Antonio	T.D. 2,535 ft; taken over from Allen Park; plugging back 10 ft.

George O'Neill's No. 1 R. V. Sauer, Sur. 12 of A. Estrada grant ..... T.D. 500 ft; drlg.

O. L. Ray's No. 1 Thos. Dillon, 2,500 feet from NW line, 1,750 ft. from most southerly SW line of de Luna grant in southern part of county ..... T.D. 200 ft; drlg.

H. G. Venable's No. 2 F. Dulling, 1,500 ft. W of center of E line of tract ..... Location.

W. L. Whicker's No. 1 Bilharts ..... Location N of No. 1 Strumberg, and W of No. 1 Carruth.

BLANCO COUNTY

H. T. McGee's No. 1 Forbes, cen. Sec. 167 ..... Rigging up

C. L. McLeary's No. 1 Meier ..... T.D. 860 ft; S.D. in lime.

Hardy Sitton's No. 1 Luders, 150 ft. from S line, 1,420 ft. from E line of James Stanford Sur. ..... T.D. 700 ft; S.D.; depth corrected.

CALDWELL COUNTY

Fred Adams' of Lockhart No. 1 Robertson, 450 ft. from N and W lines of Robertson 100-ac. tract in John Neill Sur. ..... Location.

Louis Crouch's No. 1 Sue Neelan, 1,500 ft. to SE lines, 150 ft. from NE lines of 200-ac. tract in John B. Gray Sur. ..... T.D. 1,100 ft; S.D.

E. D. Herne's No. 1 M. C. and P. W. Jeffrey 126-ac. tract, 150 ft. from N and E lines of tract in James George Sur. ..... Set surface pipe, waiting for wtr

E. L. Hope and Joe Cole's No. 1 M. August, 150 ft. from NE line, 165 ft. from NW line of tract in A. Floyd Sur. ..... T.D. 90 ft; drlg.

E. R. Thomas' No. 1 Alexander, 568 varas from NW lines, 334 varas from NE line of 158 acres in Spiller Sur. ..... T.D. 1,992 ft; in chalk; drlg.

DUVAL COUNTY

Cowden et al's No. 1 State Bank of Alice, 209 ft. to S line, 1,450 ft. to W line of E. Valentine Sur. No. 26.. Steel derrick.

Huff & Kyle's No. 1 A. Roach, 865 ft. from E line, 45 ft. from S line of Blk. 7, Sur. No. 457 ..... T.D. 172 ft; drlg.

Ed Leach et al's No. 1 C. J. Bain, 330 ft. to S line, 330 ft. to E line of NW SW of Sur. 264 ..... T.D. 250 ft; standing.

Magnolia Pet. Co.'s No. 1 Duval County Ranch Co., Sur. 208 ..... Derrick.

Newton et al's No. 1 Welder-Wood, 5,550 ft. from W line, 4,590 ft. from N line of Sur. 103 ..... Rigging up.

Plymouth Oil Co.'s No. 2 Hoffman, 1,320 ft. from SE line, 2,640 ft. from SW line of Sur. 117 ..... T.D. 3,513 ft; abd. dry; sand 3,287-3,513 ft.

C. P. Scott's No. 1 J. W. Kidd, 990 ft. from N and E lines of SE of Sur. No. 56 ..... T.D. 2,264 ft; standing.

Smith & Hunter's No. 1 Manuel Olivarez, 1,500 ft. SE of No. 1 Pena ..... Location.

Stanley Smith's No. 1 C. Pena, 330 ft. from S and W lines of Sur. No. 79 ..... T.D. 1,931 ft; comp. 30,000,000 ft. gas, 700 lbs.; on tubing open flow.

Wm. B. Stewart's No. 1 Duval County Ranch Co., 990 ft. to S and E lines, of NE of Sur. 362..... Drlg. wtr. well.

Wm. B. Stewart's No. 2 Duval County Ranch Co., 330 ft. from N and W lines of N½ SW of Sur. 362..... T.D. 165 ft; drlg. hard rock from 15 to 105 ft.

S.R.C. Oil Co.'s No. 1 Duval County Ranch Co., 150 ft. from N line, 4,200 ft. from W line of Sur. 192..... Rigging up.

Sun Oil Co.'s No. 2 Duval County Ranch Co., 1,320 ft. to E line, 672 ft. to N line of Sur. 254 ..... T.D. 2,340 ft; coring.

FRIO COUNTY

Amerada Pet. Corp.'s No. 1 Halff & Oppenheimer, 1,200 ft. from N line, 200 ft. from E line of W. F. Haisel Sur. ..... T.D. 6,312 ft; topped Edwards 6,302 ft; tested 900 ft. sulphur wtr. in 10 min.; trace of oil.

James E. Greenlee's No. 1 W. W. Burns, 613 vrs. to N line, 900 vrs. to W line of Antone Hutzler Sur. ..... Rigging up.

GILLESPIE COUNTY

Rod Lagra's No. 1 Stephen, 500 ft. from N and W lines of A.B.&M. Sur. No. 569 ..... Spudded in.

GUADALUPE COUNTY

B. E. Brock's No. 1 Ogletree, 1,600 ft. from W line, 450 ft. from S line of tract in Robert Smith Sur..... T.D. 2,220 ft; drlg.

Keene & Russell's No. 1 Lowman, 300 ft. from E line, 350 ft. from N line of tract in George Allen Sur. ... T.D. 330 ft; standing; to be completed by Clint Lanier.

W. A. Scrutchin's No. 1 S. J. Lowman, 170 ft. from N line, 195 ft. from W line of 10-ac. tract, in Blk. 1, Sec. No. 1 of S. J. Barnes Sur. ..... T.D. 410 ft; drlg.

O. R. Seagraves' No. 1 Krueger, 150 ft. to N and W lines of 88.75 acres in John G. King Sur. 15..... T.D. 2,532 ft; drlg.

Smith's No. 1 Lowman, offsetting old test of Humble.. T.D. 450 ft; drlg.

Walton et al's No. 1 Dan Darling, 1,890 ft. from NW line, 1,198 ft. from SW line of Ben Fuqua Sur. ..... T.D. 2,483 ft; drlg.

GOLIAD COUNTY

Hoffman & Gooch's No. 1 Fromme, 600 ft. from N and 1,200 ft. from W line of Peter B. Dexter Sur. ..... T.D. 2,470 ft.; standing.

GONZALES COUNTY

Antibus et al's No. 1 James, 6,350 ft. from N line, 1,300 ft. from E line of Mary A. Williams Sur. ..... T.D. 2,480 ft; S.D.

Edmiston & Kirby Pet. Co.'s No. 1 J. W. Ward, Jr., 300 ft. from N line, 833 ft. from W line of tract in Dan McKay Sur. ..... T.D. 1,592 ft.; standing.

A. King's No. 1 F. Ramzinski, 1,021 ft. to N line, 1,350 ft. to E line, Gonzales Sur. ..... T.D. 553 ft; abd.

Luling O. & G. Co.'s No. 1 Gov. Hastings, 150 ft. to NE and SE lines of 58-ac. tract in Isaac Baker Sur., 1 mile south of Sample ..... T.D. 2,200 ft; drlg.

HIDALGO COUNTY

Barrett-Kanellos' No. 1 J. B. Brock, 7 miles W and N from Mission (on Monte Cristo road) ..... T.D. 4,590 ft; to resume soon.

Carl & Johnston's No. 1 Doughty, 187 ft. from S and E lines of Lot 11, Blk. 5 of Subd. of Indios Ranch Sur. in N. Hidalgo ..... T.D. 1,475 ft; set csg.

Palm City Pet. Co.'s No. 1 J. T. Lomax, 7,500 ft. from S and E lines of San Roman Sur. ..... T.D. 1,445 ft.; drlg.

Dayle L. Smith's No. 3 Daskam, SW part of county.... T.D. 1,706 ft; set csg. to drlg. plug.

JIM HOGG COUNTY

Cole Pet. Co.'s No. 1 W. Allen, 990 ft. to E line, 1,320 ft. to N line of Blk. 13, Randado grant ..... T.D. 3,684 ft; standing.

JIM WELLS COUNTY

Humble Oil & Ref. Co.'s No. 1 Fuhrkin, 1,117 ft. from N line, 450 ft. from W line of 150.77-ac. tract in Phillips Sacks Sur. ..... T.D. 4,465 ft; drlg.

F. A. Lain's No. 1 Vernon Porter, 800 ft. from S line, 400 ft. from W line of 200-ac. tract in Sur. 25 ..... T.D. 3,611 ft.; standing.

KARNES COUNTY

W. R. Campbell's No. 1 E. C. Gilbert, C. Martinez Sur. .. Rigging up.

A. A. Edmiston's No. 1 G. W. Cross, 500 ft. from E line, 150 ft. from N line of tract in M. N. Reed Sur. ..... Spudded in

Hindeman et al's No. 1 F. C. Weinert ..... T.D. 1,000 ft; drlg.

H. J. Porter et al's No. 1 Reasoner, 1,800 ft. to S line, 650 ft. to E line of 125-ac. tract ..... T.D. 3,305 ft; abd.

Tippett & Mull's No. 1 Smith, 8,500 ft. from N line, 200 ft. from E line of Francis Haskins Sur., 3½ miles W of Helena ..... T.D. 20 ft; no report.

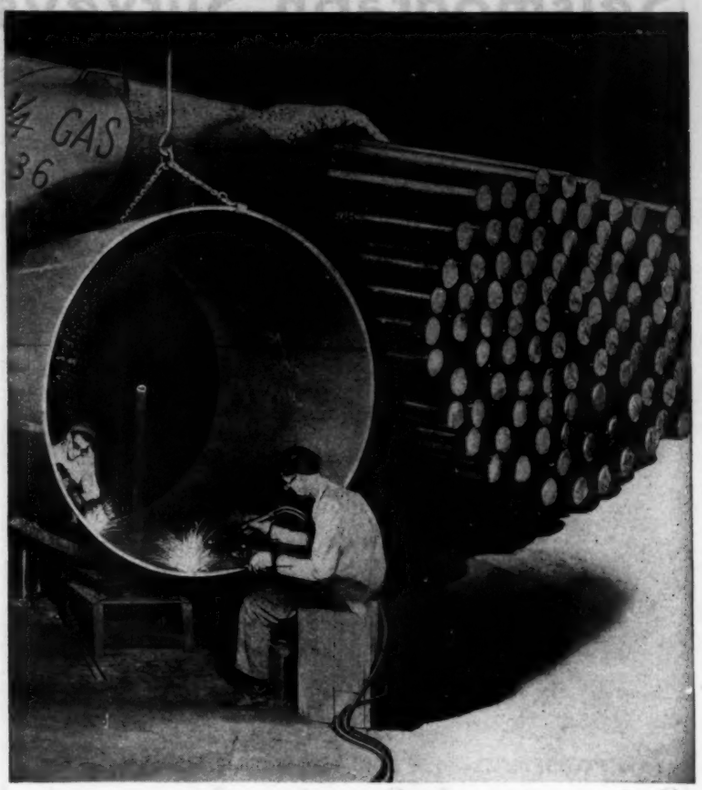
KENDALL COUNTY

Dupree et al's No. 1 Hagg, 600 ft. to S line, 2,700 ft. to W line of tract, B.B.B.&C. Sur. 91 ..... Repairing rig.

Verland Trust's No. 2 Willie Werner, 1,400 ft. N and 150 ft. W of No. 1 P. B. Sterling's No. 1 Willie Werner ..... T.D. 970 ft; C.O.

KERR COUNTY

Eastland Oil Co.'s No. 1-C Jeff Love, 150 ft. from S and E lines of C.C.S.D.&R.G.N.G. Sur. No. 1,595 ..... T.D. 3,462 ft; abd.; sand 3,442-52 ft. showed little gas, oil, S.W., 80 ft. low.



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A CORRECTION

IN the November 17, 1932 issue of this magazine, we inserted an advertisement, over our name and that of the Baroid Sales Company, concerning a patent decision involving Stroud patent 1,575,945 owned by us. The advertisement referred to carried the following statement:

"Baroid is the only oil well drilling mud weighting material which is licensed for sale or use under this patent."

This statement was inaccurate in that we failed to mention that C. K. Williams & Company, of Easton, Pennsylvania (and their subsidiaries) are licensed by us, under the Stroud patent, to make and sell IRON OXIDE for use as a weighting material in the drilling of oil and gas wells, and the users of their product are fully protected under that patent.

We are making this correction in justice to C. K. Williams & Company and to clear up any wrong impression which may have been given by the original statement.

NATIONAL PIGMENTS & CHEMICAL COMPANY

ST. LOUIS, MISSOURI

Evans & Gant's No. 1 Estelle Young, 150 ft. out of NW cor. of Sec. 28, E. A. Burge Sur. ..... T.D. 1,310 ft; abd.
Van Duyn & Moore's No. 1 Nowlin, 2,000 ft. from E line, 2,200 ft. from N line of James R. Bettner Sur. .. T.D. 700 ft; drlg.
Verde Oil & Gas Co.'s No. 1 J. D. Witt, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 1,922 in Hamilton Sur. ..... T.D. 118 ft.; standing.

KLEBERG COUNTY

Harris et al's No. 1 Dennett, 600 ft. from S line, 760 ft. from E line of Blk. 7, Sec. 38, Kleberg Town & Imp. Co. Subd. ..... T.D. 2,797 ft; waiting on D.S.
H. Carter's No. 1 R. H. Simmons, 150 ft. from S and W lines of tract in Sec. 7, King Sur. No. 3 ..... T.D. 3,295 ft.; standing.

LA SALLE COUNTY

Interstate Oil Industries, Inc.'s No. 1 J. F. Mayes, 600 ft. from S and W lines of Blk. 20, L.&G.N. Sur. No. 19 ..... T.D. 2,825 ft; standing.
Salt Lake's No. 1 May ..... T.D. 2,925 ft; standing.

LIVE OAK COUNTY

Carroll Brown's No. 1 Beckley, 1,800 ft. E along N line of T. B. Sparks Sur., from NE cor., thence 150 ft. at right angles, L. J. Sparks Sur. ..... T.D. 1,066 ft; abd.
J. A. Harper's No. 2 fee, center of Blk. 40 ..... T.D. 625 ft; drlg.
Humble O. & R. Co.'s No. 1 Albert West ..... Rigging up.
Lain & House's No. 1 Richert, J. H. Gibson Sur. (Tract 33) ..... T.D. 1,200 ft; drlg.
H. A. Pagenkopf's No. 1 Nichols, 850 ft. to W of E line, 450 ft. S of E line, Bridget. Haughtey Sur. ..... T.D. 1,200 ft; T.A.
C. J. Webster Oil & Gas Co.'s No. 1 O. F. Akers, 300-ac. tract in T. Henry Sur. ..... T.D. 100 ft.; standing.

LEE COUNTY

Paton Bros.' No. 1-B Turner, 424 ft. from NW line, 375 ft. from NE line of 51.9-ac. tract in David Hudson Sur. ..... Rigging up; location changed.

MAVERICK COUNTY

B. R. Garrett and Mason Altgelt's No. 1 J. D. Beck, 730 ft. N of S line, 2,778 ft. W of E line, about 1¼ miles north of Eagle Pass on Del Rio Highway, Sur. 44 ..... T.D. 150 ft; drlg.
H. E. Lewis' No. 1 Kifuri, 640 varas E of river, 140 varas from S line of Poindexter & Burns Sur. 31 .... T.D. 500 ft; drlg.

McMULLEN COUNTY

Buchanan, Schoolfield & Frasher's No. 1 Pursch, 330 ft. to N and W lines of Sur. 115 ..... T.D. 2,225 ft; drlg.
L. W. Capps' No. 1 Hagist, 1,650 ft. from N line, 2,640 ft. from E line of Sec. 6, J. W. Osborne Sur. ..... Location abd.
French Oil Corp.'s No. 1 Shiner ..... Derrick.
Gant & Teas' No. 1 E. R. Hagist, 330 ft. from N and W lines of SW of H.&T.C. No. 24 Sur. ..... Rigging up.
Homer T. Lamb's No. 1 J. T. Brown, 150 ft. to N line, 2,450 ft. to W line of 492-ac. tract in M. Hely Sur. .. Location.
Howeth & O'Neill's No. 1 Roos Bros., 150 ft. from N line, 650 ft. from W line of Sec. 30, Rhodes ranch, Beatty, Seale & Forwood Sur. ..... T.D. 3,100 ft; abd.
Jaqua & Crow's No. 1 Hagist, 330 ft. from N and W lines of R. W. Mills Sur. No. 467 ..... Spudded in; set surface csg.
Chas. B. Loftin's No. 1 R. H. Brown, in R. H. Brown Sur. No. 8 ..... T.D. 875 ft; drlg.
Nixon & Greenwood's No. 1 G. A. Booth, 3,200 ft. from NW line, 7,000 ft. from SW line of 4 miles SW from Calliham ..... Location.
Plymouth Oil Co.'s No. 1 Miles Ranch, Sur. 149 ..... Making location.
C. C. Shumway's No. 1 Shiner, 400 ft. from W line, 300 ft. from N line of Blk. 45 of Shumway Subd. of Shiner ranch ..... T.D. 630 ft; drlg.
S. R. C. Oil Co.'s No. 1 La Chusa, 1,320 ft. to S and E lines of Sur. 47 ..... Spudded in; S.D.
Tarver & Nance's No. 2 Dickson Farm Mrtg. Co., 700 ft. due west of No. 1 ..... T.D. 150 ft; drlg.

MEDINA COUNTY

James E. Greenlee's No. 1 Feasler, 600 ft. from N line and 2,400 ft. from E line of L. G. Harrison Sur. No. 799 ..... T.D. 1,543 ft; standing.
Moore, Richey & Clifton's No. 1 Reicherers, 150 ft. from N and W lines of tract, SW of Lacoste ..... Set surface csg.
F. Ryal's No. 1 G. Martin, 150 ft. from S and W lines of Blk. 368, H. Castro Sur. ..... Spudded in and S.D

MILAM COUNTY

Bridwell's No. 1 Terry, 1,100 ft. from N line, 800 ft. from W line of tract in Jose Leal Sur. ..... T.D. 2,460 ft; S.D.
Clark et al's No. 1 Hoppe, 450 ft. to NE lines, 450 ft. to SE lines of E. Hoppe 60-ac. tract in Juan Jose Acosta Sur. ..... T.D. 103 ft; drlg.
Ed Clark's No. 1 Pritchard, 1,100 ft. to SE lines, 700 ft. to NE lines of 163-ac. tract in F. Ernst Sur., 6¼ miles NE Thorndale ..... Rigged up.
Huff & Hoch's No. 1 Lee ..... T.D. 1,492 ft; standing.
Marvel Wells, Inc.'s No. 1 fee, center of 5-ac. tract out of Wm. Henitz 133.3-ac. tract in J. J. Llendo Sur.. T.D. 2,435 ft; flowing sulphur wtr.; drlg. ahead.

NUECES COUNTY

Miller et al's No. 1 Harney, 200 ft. from NW line, 1,850 ft. from SW line of 445-ac. tract in Gregoria Farias Sur. ..... Moving in tools.
George Noble's No. 1 Homeland Syndicate, 300 ft. to SE and SW lines of Blk. 8, Sec. 12, 5 miles S Corpus Christi ..... Location.

STARR COUNTY

Adams & Modest's No. 1 Wood, 2,070 ft. from W line of Porcion 84, Camargo, and 1,472 ft. N of Missouri Pacific Railroad ..... Spudded in.
W. P. Chancellor's No. 1 A. Guerra, 26,000 ft. from S line, 2,600 ft. from E line of Share 6, of San Jose grant ..... T.D. 920 ft; S.G.
B.&B. Oil Co.'s No. 1 Crown Brick & Tile Co., 1,800 ft. S of State Highway No. 4 and 580 ft. from W line of Porcion 87, near La Puerta ..... T.D. 4,526 ft; reaming to set csg.
D. H. Carpenter's No. 1 Salinas, 3,587 ft. from N line, 1,321 ft. from E line of Share 95 of partition of Porciones 38, 39, 40 in Jurisdiction of Reynosa ..... T.D. 3,747 ft; abd.
Clark & Johnson's No. 1 Doughty, 187 ft. from S and E lines of Lot 11, Blk. 5, subd. of Los Indios ranch.. Moving in tools.
Coastal O. & G. Co.'s No. 1 Kelsey Bass, 448 ft. to N line, 150 ft. to W line of Tract 52, Sur. 2, Porcion 86.. T.D. 1,860 ft.; changing to heavier rig.
F. R. Cooper's No. 1 J. M. Martinez, 150 ft. to S and E lines of A.B.&M. Sur. No. 135 ..... Location.
Dawson et al's No. 3 Margo, 5,560 ft. from S line, 600 ft. from W line of Share 3-B, Por. 70, jurisdiction Mier ..... T.D. 381 ft; drlg.
Four-In-One Oil Synd.'s (J. E. Waldron) No. 1 Marks Estate, 200 ft. SW of center of Sur. No. 483 (in Blk. 10) ..... Spudded in.
Goodwin & Yantis' No. 1 Walker, 450 ft. SE of W line of Isabel Lopez property in Sur. 767 ..... T.D. 1,002 ft; abd.
Goodwin & Yates' No. 1 Kelsey Bass, 150 ft. to N and W lines of Blk. 45, Sur. 2, Por. 86 ..... Location.
Great Plains Oil Co.'s No. 1 Sanchez, 660 ft. from W line, 330 ft. from S line of SE of NW of Sur. No. 344 ..... T.D. 2,410 ft; drlg.
Great Plains Oil Co.'s No. 2 Sanchez, 2,050 ft. to S line, 1,645 ft. from most westerly W line of Sur. 344. T.D. 250 ft; drlg.
Jeffries and Lambeth Drilling Co.'s No. 1 Starr County Cattle Co., 11,572 ft. from N line, 2,490 ft. from E line of Porcion 89, Jurisdiction of Camargo ..... T.D. 1,680 ft; drlg.
Boyd C. Jones' No. 1 Garza, 2,407 ft. from N and E lines of Share 26, Part. of Porciones 67-72, Jurisdiction of Mier ..... T.D. 560 ft; standing.
LaJoya Oil & Gas Co., in Porcion 39, NE part of county.. Location.

A. C. McGahhey's No. 1 Fernandes Bros., 1,800 ft. from W line, three-quarters of a mile from Rio Grande River, in Porcion 99, Jurisdiction of Camargo ..... T.D. 180 ft.; drlg.
D. A. Miller's No. 1 Madrigal, 4,837 ft. to N line, 1,987 ft. to E line of Share 16, Porcions 67, 72, 1 mile NE of Roma ..... T.D. 380 ft; standing.
Percy Brenton's No. 1 Starr County Cattle Co., 150 ft. from W line of Por. 89, 150 ft. north of Highway No. 4, Camargo Sur. ..... Using spudder to start.
John Pope, trustee's No. 2 H. Gonzales, 150 ft. W of cen. of E line of Sur. No. 329 ..... Spudded in.
J. W. Seaward's No. 1 F. Dawson, 495 ft. from W line, 240 ft. from S line of tract in Blk. 6, Share 3-B of Porcion No. 70 ..... Location.
George Stobaugh's No. 1 Seabury et al, 150 ft. from S and W lines of Porcion 107 ..... T.D. 278 ft.; no report.
Travelers Oil Co.'s No. 1 C. Ramos, 2,000 ft. from SW lines, 2,640 ft. from NW lines of Sur. 150 ..... Location.

TRAVIS COUNTY

J. L. Collins & Co.'s No. 1 John Carlson, 630 ft. to NE lines, 1,570 ft. from SE lines of 177-ac. tract in M. W. Smith Sur. ..... T.D. 1,188 ft; drlg. Serpentine and chalk.
Franklin et al's No. 1 Reimer, 1,200 ft. from SE line, 1,400 ft. from most southerly SW line of Sur. 35 .. T.D. 312 ft; S.D.
Fritz Fuch's No. 2 Wm. Smith, 150 ft. from NE line, 750 ft. from NW line of N 113 ac. in L. Kimbro Sur.. T.D. 760 ft.; fishing.
Robinson et al's No. 1 O. L. Brady, 155 ft. to N line, 300 ft. to W line, McMillan Sur. ..... Location.
Watson et al's No. 1 Maggie Kee Brady, 850 vrs. to NW line, 54 vrs. to NE line of Elkins McMillan Sur. ..... T.D. 470 ft; drlg. lime.

UVALDE COUNTY

J. V. Scoggin's No. 1 Olive Henry, 1,100 ft. from N and E lines of tract in Hugh Kilgore Sur. ..... T.D. 670 ft.; S.D.

VICTORIA COUNTY

John F. Camp's No. 1 Mrs. Etta Terrell, 3½ miles SW from Victoria ..... Gulf and Stoneleigh O. & G. Co. interested.

WEBB COUNTY

J. W. Edwards' No. 1 M. D. Slator, 1,320 ft. to NE and NW lines of Blk. 72, Slator Subd. of J. V. Borrego grant ..... T.D. 2,065 ft; drlg.
O. W. Killam's No. 6 Bruni, 150 ft. S 55 deg. W from S cor. of Sur. 18, Ranchita Pasture, Borrego grant.. T.D. 2,238 ft; abd.

WILLIAMSON COUNTY

McLean et al's No. 2 R. C. Miller, 800 ft. to S line, 100 ft. to W line of tract in B. Manlove Sur. ..... T.D. 1,669 ft; S.D.
E. F. Smith's No. 1 H. C. Braker, 1,600 ft. to SW lines, 900 ft. to NW lines of E. J. Mahan Sur. ..... T.D. 513 ft.; S.D.
R. S. Wilson's No. 1 Gray ..... T.D. 1,140 ft; in chalk.

ZAPATA COUNTY

Hamilton, Brower & Crow's No. 1 Slator, 2,111 ft. from SW line, 1,980 ft. from SE line of Blk. 1, Subd. of Slator ranch in J. V. Borrego grant ..... T.D. 500 ft; drlg.
Donohoo et al's No. 1-A Garcia, 150 ft. from NE and SE lines of Blk. 7 of Subd. of 700-ac. of Share A, Charco Redondo grant ..... T.D. 1,143 ft; standing.
T. J. Murray's No. 1 S. Vela, 285 ft. from NE line, 155 ft. from SE line of Blk. 145, Doty Subd., Share 4, El Grullo grant ..... Rigging up.
Phelps, Taegel & Leyendecker's No. 1 Martinez, 150 ft. to N and W lines of Blk. 15 of S. T. Phelps, Jr. Subd. "A" of Villa grant ..... T.D. 2,007 ft; abd.
S. R. C. Oil Co.'s No. 1 T. Trevino, 660 ft. to S and E lines of Blk. 5, Sur. 60 ..... Spudded in.

ZAVALA COUNTY

Adair & Daniel's No. 1 Gates, 1,320 ft. from N line, 1,220 ft. from E line of Hooper & Wade Sur. No .13.. T.D. 3,920 ft; standing.

Southwest Texas Proven Areas

Week Ending February 4

RIDDLE POOL—BASTROP COUNTY

Company, well, farm name, section and block—	Remarks:
Ogden & Reed's No. 8 Riddle, 600 ft. S and E of No. 1 Riddle in 94.5-ac. tract in Joshua Gray Sur.	Rigging up.
Ogden & Reed's No. 1 Miers, beginning at the intersection of the C. L. Riddle and W. M. and Viola Riddle tracts, thence W 300 ft., thence S at right angles 150 ft. in W. H. Leech Sur.	T.D. 2,355 ft; abd.
Ogden & Reed's No. 2 J. W. Mears, 600 ft. W of No. 1 Leach Sur.	Location.
Ogden & Reed's No. 2 Riddle, 600 ft. N of No. 1, J. Gray Sur.	Location.
Ogden & Reed's No. 3 Riddle, 600 ft. N of No. 2, J. Gray Sur.	Location.
Ogden & Reed's No. 4 Riddle, 600 ft. S of No. 1, J. Gray Sur.	Location.
Ogden & Reed's No. 5 Riddle, 600 ft. E of No. 3, J. Gray Sur.	Location.
Ogden & Reed's No. 6 Riddle, 600 ft. E of No. 2, J. Gray Sur.	Location.
Ogden & Reed's No. 7 Riddle, 600 ft. E of No. 1, J. Gray Sur.	Location.

NORMANNA POOL—BEE COUNTY

Gulf Coast Oil Co.'s No. 5 Hicks, 600 ft. E of Nichols Oil Co.'s No. 3 Hicks	T.D. 4,060 ft; coring.

PETTUS FIELD—BEE COUNTY

J. L. Mauldin's No. 3 fee, 300 ft. S of No. 1 fee, George A. Kerr Sur.	T.D. 3,881 ft; drlg. in.
Slick-Seeligson's No. 8 Ray, 800 ft. from SE line, 300 ft. from NE line of company lease in George A. Kerr Sur.	T.D. 3,893 ft; drlg. in.

TULETA POOL—BEE COUNTY

Taber et al's No. 1 Harris, 150 ft. from N and W lines of Blk. 13, Sec. 13, Ragsley Subd. of Uranga grant	T.D. 4,328 ft; abd.
The Texas Company's No. 2 Cox, 250 ft. from S and W lines of SE of SW of SW of Sec. 2, Ragsley Subd. of Uranga tract	Location abd.

GAS RIDGE—BEXAR COUNTY

American Gas Co.'s No. 5 W. H. Kennon, 1,750 ft. from S line, 2,000 ft. from E line of 400-acre tract in Maria F. Rodrigues Sur.	T.D. 2,230 ft.; standing.

ECKERT POOL—BEXAR COUNTY

Alamo Nat. Gas Co.'s No. 3 J. H. Gembler, 180 ft. from N and E lines of tract in A. Manachaca Sur. 51	T.D. 1,216 ft.; standing.
Bowman & Richards' No. 3 Halbardier, 1,920 ft. to E along N line of Jose M. Perez Sur. from W of NW cor., 160 ft. S of N line of same survey	Location.
E. M. Carl's No. 1 F. Gembler, 160 ft. from N line, 750 ft. from E line of tract in J. Montez Sur.	T.D. 826 ft; S.D.
Charles P. Cartter's No. 2 Gembler	Rigging up.
C. W. Richards' No. 4 Halbardier, J. M. Perez Sur.	T.D. 600 ft; drlg.
F. H. Eckert's No. 6 Louis Brehm, 320 ft. S of No. 5, 150 ft. to S line, 480 ft. to E line, Boquar Sur.	Moving in rig.
Gatlin Oil Co.'s No. 15 I. A. Beck, 150 ft. from S and E lines of tract in J. Montez Sur.	T.D. 723 ft; set csg.
D. C. Pegg's No. 2 Walter Gembler, 150 ft. to S line, 150 ft. to E line of Walter Gembler 20-ac., Manachaca Sur. No. 51	Location.
W. R. Swearingen's No. 11 Halbardier, 400 ft. SE of No. 10 Halbardier, J. P. Perez Sur.	Location.

DUNLAP POOL—CALDWELL COUNTY

Bob Rose's No. 2-B Walker 46-ac. tract, 360 ft. from NW line, 500 ft. from SW line of tract in Solomon Seal Sur.	T.D. 2,372 ft.; waiting for pump.

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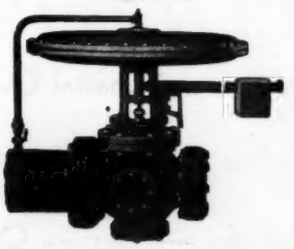

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SALT FLATS—CALDWELL COUNTY

Hickman et al's No. 1 C. A. Dickerson, 150 ft. N of cen. of S line of tract in John D. Rains Sur. ..... T.D. 2,363 ft; S.D.

NORTH GOVERNMENT WELLS POOL—DUVAL COUNTY

R. B. Byrd's No. 4 Wright, 1,086 ft. from W line, 330 ft. from S line of Sur. No. 101 ..... T.D. 2,332 ft; sanded up; pulling tubing.

R. B. Byrd's No. 5 Wright, 330 ft. from N line, 1,470 ft. from W line of Sur. 101 ..... Location.

Central Producers' No. 6 Tuck-Johnson, 330 ft. to N and E lines of SW SW of Sur. 42 ..... Rigging up.

H. H. Coffield's No. 5 H. Wendt, 310 ft. to E line, 330 ft. to S line, SE NE Sur. 45 ..... Derrick blew down.

W. T. Daniels' No. 1 F. J. Smith, 330 ft. from N and W lines of SW of NE of Sur. No. 46 ..... T.D. 900 ft; waiting on boiler.

Highland Oil Co.'s No. 7 Lundvall, 330 ft. to N and E lines of S½ of NE of Sur. 42 ..... Location.

Highland Oil Co.'s No. 8 Lundvall, 330 ft. to S and E lines of S½ of NE of Sur. 42 ..... Location.

Luse & Russ' No. 4 Hahl, 330 ft. to S and E lines of NW of SE of Sur. 45 ..... T.D. 2,319 ft; comp. 10 bbls. hrly.

Edwin M. Jones' No. 1 Luptak, 150 ft. to S and E lines of NE NE of Sur. 41 ..... T.D. 2,284 ft; comp. 20,000,000 ft. gas, 500 lbs.; shut in; bailed some oil at first.

Magnolia Pet. Co.'s No. 3 Brodbeck, 330 ft. from N and E lines of W½ NW NE Sur. 44 ..... T.D. 2,296 ft.; comp. 200 bbls. monthly.

Magnolia Pet. Co.'s No. 3 White, 330 ft. from N and W lines of Sur. No. 44 ..... T.D. 2,301 ft; comp. 60 bbls. daily on pump.

Magnolia Pet. Co.'s No. 1 Hahl-Weiderkehr, 330 ft. to S and E lines of N½ NW of Sur. 45 ..... Location.

Magnolia Pet. Co.'s No. 3 J. W. Riley, 330 ft. to N and E lines of SE SW of Sur. 45 ..... T.D. 2,278 ft; comp. 20 bbls. hrly.

Navarro Oil Co.'s No. 1 C. W. Hahl, 370 ft. from S line, 335 ft. from E line of SW of No. 360 Sur. ..... Rigging up.

Reynosa Oil Co.'s No. 3 C. W. Hahl, 330 ft. to N and W lines of N½ NE of Sur. 42 ..... T.D. 2,298 ft; comp. 45 bbls. hrly.

Reynosa Oil Corp.'s No. 4 C. W. Hahl, 330 ft. from S line, 990 ft. from E line of N½ NE of No. 42 Sur. ..... Spudded in.

San Diego Oil Corp.'s No. 5 E. Riley, 330 ft. from S and W lines of NW NW of Sur. No. 46 ..... Location.

San Diego Oil Corp.'s No. 2 L. Bennett, 500 ft. N of No. 1, 250 ft. to W line of SE SW of Sur. No. 44 ..... Location.

San Diego Oil Corp.'s No. 4 E. Riley, 330 ft. from N line, 550 ft. from W line of NW NW of Sur. No. 46 ..... T.D. 2,291 ft; abd.; dry.

San Diego O. & G. Co.'s No. 2 Heller, 200 ft. to S and W lines of SW SE of Sur. 44 ..... Location.

Seacord & Putnam's No. 1 Lundell, 330 ft. from S and E lines of NW of NE of Sur. No. 60 ..... Derrick.

The Texas Co.'s No. 3 D. J. Freer, N½ NE of Sur. 45 ..... T.D. 2,235 ft; drlg.

The Texas Co.'s No. 4 D. J. Freer, 330 ft. to S line, 990 ft. to W line of N½ NE of Sur. 45 ..... T.D. 2,250 ft; set csg.; W.O.C.

The Texas Company's No. 3 Riggs, 200 ft. from N and E lines of NE of NW of Sur. No. 46 ..... T.D. 2,301 ft; comp. 75 bbls. hrly.

The Texas Co.'s No. 6 Tuck Johnson, 990 ft. from S and E lines of N½ SW of No. 42 Sur. ..... T.D. 45 ft; set surface csg.

Violet Oil Co.'s No. 1 M. Webb, 330 ft. to S and E lines of S½ NE of Sur. No. 41 ..... T.D. 2,270 ft; comp. 15,000,000 ft. gas, 700 lbs.; odor of oil.

Whisenant et al's No. 5 Hahl, 330 ft. to N and W lines of SW SW of Sur. 44 ..... Location.

Wilkins Seacoard's No. 1 Lundell, 330 ft. to S and E lines of NW of NE of Sur. 60 ..... T.D. 2,293 ft; tested S.W.

Windsor Oil Co.'s No. 3 Cummings, 330 ft. from N line, 330 ft. from E line, E½ NW NE Sur. 44 ..... Location changed.

SOUTH GOVERNMENT WELLS FIELD—DUVAL COUNTY

Humble Oil & Ref. Co.'s No. 10 White, 330 ft. to S line, 1,650 ft. to E line of Sur. 349 ..... T.D. 2,266 ft; 210 bbls.

BARNOSA FIELD—DUVAL COUNTY

Atravasada Oil Co.'s No. 1 P. Henrandez, 330 ft. to NW and SW lines of E half of Sur. 574 ..... T.D. 1,714 ft; standing.

Barnosa Oil Corp.'s No. 5 Weil, 660 ft. due S of No. 4 ..... T.D. 2,429 ft; estimated 250 bbls.

Smith & Capps' No. 4-A Duval County Ranch Co., Sur. No. 574 ..... T.D. 2,438 ft.; flowing 300 bbls. daily.

Sun Oil Co.'s No. 2 Cuellar (Cano), 150 ft. from SW and SE lines of E quarter of Sur. No. 576 ..... Rigged up.

The Texas Co.'s No. 2-A Duval County Ranch Co., 1,052 ft. to SE lines, 330 ft. to SW lines of N¼ of Sur. 574 ..... T.D. 2,690 ft; drlg.

DARST CREEK FIELD—GUADALUPE COUNTY

John F. Camp's No. 3 Sue Denman, 1,025 ft. S of road, 540 ft. to E line of tract in Wm. Arrington Sur. ..... T.D. 3,222 ft; S.D. for orders.

SAL-MAR FIELD—GUADALUPE COUNTY

A. H. Barnhoil's No. 1 Chas. Woehler, 300 ft. to N and E lines of 138-ac. tract in G. W. Williams Sur. No. 46 ..... T.D. 2,337 ft; drlg.

A. W. Wormser's No. 1 Harris, 150 ft. from N line of tract and 150 ft. E of creek in Green Dewitt Sur. ..... Derrick.

HORD'S CREEK—GOLIAD COUNTY

Sam Vanderweiss' No. 1 Kaufman, 3,700 ft. NE of NE line of B. Merrill Sur., 300 ft. NW of NW line of Vincente Ramos Sur. ..... T.D. 4,440 ft; drlg.

ALWORTH FIELD—JIM HOGG COUNTY

H. C. Cate's No. 1 B. J. Leyendecker, 70 ft. to E line, 330 ft. to S line, Blk. 10, Sur. 143 ..... T.D. 1,132 ft; standing.

SANDIA POOL—JIM WELLS COUNTY

Crude Oil Royalty Co.'s No. 1 Allen (first carried as Hughes & Long's No. 1 Wade), Cen. Blk. 2, Wade ranch ..... Rig on ground.

Larcro Gas & Pet. Co.'s No. 3 Wade, 2,000 ft. S, 33 deg. W of No. 2 Wade, thence 1,970 ft. N. 57 deg. W. ..... Material on ground.

WERNER POOL—KERR COUNTY

Sterling O. & G. Co.'s No. 2 Willie Werner, 470 ft. N, 150 ft. W of No. 1 ..... T.D. 970 ft; C.O. after shot.

JACOB POOL—McMULLEN COUNTY

Lefevre & Spice's No. 1 Jacob, 2,666 ft. to S line, 1,260 ft. to E line of J. Poitevent Sur. 53 ..... Location.

Longhorn Oil Co.'s No. 2-A Lark, 660 ft. N of No. 1-A Lark ..... T.D. 1,056 ft; plugging back.

Tarver & Nance's No. 1 J. Dickinson Farm Mtg. Co., 150 ft. to E line of McMullen County, 300 ft. to NW lines of tract, or 200 ft. SE of SE line of Campbell Berry Sur. ..... T.D. 750 ft; changing to rotary rig.

ADAMS FIELD—MEDINA COUNTY

Yantis Oil Co.'s No. 1-A Adams, 50 ft. from No. 1 ..... T.D. 680 ft.; S.D.

SAXET FIELD—NUECES COUNTY

Capps and Smith's No. 1 Hutchins, 330 ft. from S and E lines of 80-ac. tract in George Frank Sur. No. 416 ..... T.D. 5,004 ft; abd.

Gibson Oil Co.'s No. 1 F. J. Smith, 330 ft. to S and E lines of Shepherd Farm Lots No. 25 ..... T.D. 974 ft; drlg.

Gulf Coast Oil Co.'s No. 2 Perkins & Lagasse, 650 ft. from N line, 990 ft. from E line, Sec. 24, Shepherd farm lots ..... T.D. 5,060 ft; plugging back to 4,500 ft.

Gulf Port Oil Co.'s No. 1 Isencee, 330 ft. to N and W lines of 300-ac. tract in C. Land Sur. ..... Location.

Gulf Port Oil Co.'s No. 3 Frank Bliss, 1,699 ft. to N line, 350 ft. to E line of 235-ac. tract in J. W. Stevens Sur. No. 406 ..... T.D. 4,059 ft; drill pipe stuck.

Gulf Port Oil Co.'s No. 3 Humphreys, 115 ft. from N line, 330 ft. from W line of lease (S offset to No. 1 Gibson, Rand Morgan Sur.) ..... Location.

Houston Oil Co.'s No. 2 McGregor, 600 ft. W of No. 1 ..... T.D. 4,869 ft; drlg.

Shasta Oil Co.'s No. 1 Quiros ..... T.D. 1,750 ft; drlg.

Texas Coast Oil Co.'s No. 1 Clark-Morgan, 330 ft. from S and E lines of N½ of Sur. No. 406 ..... T.D. 2,135 ft; drlg.

Texas Coast Oil Co.'s No. 1 Clark-Morgan Co. ..... T.D. 2,121 ft; drlg.

Titus & Calloway's No. 2 Lagasse, 330 ft. from N and W lines of E half of Blk. 35 of Shepherd farm lots ..... Derrick.

Titus & Calloway's No. 1 Ran Morgan, 330 ft. from N and E lines of W 80 acres of E 160 acres of N half of 432 acres of B.S.&F. Sur. No. 493 ..... Derrick.
Violet Oil Co.'s No. 1 McGregor-Polk ..... T.D. 4,081 ft; coring hard sand.

REFUGIO POOL—REFUGIO COUNTY

Edwin M. Jones' No. 4 Mitchell, 900 ft. S of No. 1-B Mitchell ..... Location.

MATHIS POOL—SAN PATRICIO COUNTY

Geo. W. Scruggs' No. 1 Collins ..... Location.

WHITE POINT FIELD—SAN PATRICIO COUNTY

Saxet Oil Co.'s No. 19 Rachel ..... T.D. 4,922 ft; drlg. ahead.

LOS OLMOS POOL—STARR COUNTY

Austin et al's No. 1 Kelsey Bass, 150 ft. to N and W lines of NW of NW of Sur. 4, Porcions 75, 76, 77, Jurisdiction of Camargo ..... Rigging up.
Brooks O. & G. Co.'s No. 1 Kelsey Bass, 150 ft. from N and E lines of NW SW Sec. 6, Pors. 75, 76, 77, jurisdiction Camargo ..... T.D. 385 ft; drlg.
Floyd-Doyno-Tolands' No. 1 Seabury, 340 ft. from S line of Doyno 80 acres, Share 5, Por. 75, Camargo Sur. T.D. 432 ft; drlg.
Goodwin & Yantis' No. 1 Kelsey Bass, 150 ft. to S and E lines of SE of NW of Sur. 2, Porcions 75, 76, 77.... Rigging up.
Goodwin & Yantis' No. 1 Seabury, 150 ft. from N and E lines of N 80 ac. of Share 5, W portion of Porcion 75, Camargo ..... T.D. 934 ft; bailing oil; bldg. storage.
J. E. Harper & Co.'s No. 1 E. Salinas, 150 ft. to S and E lines of 40-ac. tract in Share 16, Por. 75 ..... T.D. 378 ft; standing.
Hooks & Weaver's No. 14 Kelsey Bass, NE SW Sec. 6, Porcions 75, 76, 77, Camargo ..... T.D. 250 ft; drlg.
Keck & Keane's No. 2 Kelsey Bass, 150 ft. from N and W lines of NE NE Sec. 6 of Subd. of Porcions 75, 76, 77, Jurisdiction of Camargo ..... T.D. 1,040 ft; no report.
Los Olmos Oil & Gas Co.'s No. 42 Kelsey Bass, 450 ft. from E line, 420 ft. from N line of SE of NW Sec. 7, Porcions 75, 76, 77, Camargo ..... T.D. 210 ft.; drlg.
Los Olmos Oil & Gas Co.'s No. 44 Kelsey Bass, 200 ft. from E line, 120 ft. from N line of SE of NW Sec. 7, Porcions 75, 76, 77, Camargo ..... Spudded in.
Los Olmos Oil & Gas Co.'s No. 45 Kelsey Bass, 500 ft. from E line, 120 ft. from N line of SE NW Sec. 7, Porcions 75, 76, 77, Camargo ..... Location.
Los Olmos Oil & Gas Co.'s No. 46 Kelsey Bass, 800 ft. from E line, 120 ft. from N line of SE NW Sec. 7, Porcions 75, 76, 77, Camargo ..... Location.
Los Olmos O. & G. Co.'s No. 47 Kelsey Bass, 200 ft. to E line, 105 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 48 Kelsey Bass, 425 ft. to E line, 105 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 49 Kelsey Bass, 650 ft. from E line, 105 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 51 Kelsey Bass, 425 ft. to E line, 330 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 52 Kelsey Bass, 650 ft. to E line, 330 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 54 Kelsey Bass, 475 ft. to E line, 555 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
Los Olmos O. & G. Co.'s No. 55 Kelsey Bass, 700 ft. to E line, 555 ft. to S line of NE NW Sur. 7, Por. 75-76-77 ..... Location.
R. A. Mitchell's No. 1 Kelsey Bass, 150 ft. from S and W lines of NW SE of Sur. 3, Subd. Porcions 75, 76, 77, Jurisdiction of Camargo ..... T.D. 300 ft; skidding 6 ft. for new hole.
C. L. Sinclair's No. 2 Kelsey Bass, 150 ft. to S line, 1,050 ft. to W line of SW of SW of Sur. 5, Porcions 75, 76, 77 ..... T.D. 602 ft.; fishing.
Wells et al's No. 1 Lonsgraf, 150 ft. from N and E lines of SW of SW of Sur. 7, Porcions 75, 76, 77, Camargo ..... T.D. 387 ft.; being drilled by McCormick.

RIO GRANDE CITY POOL—STARR COUNTY

Chiquita Oil Co.'s No. 1 Jones & Doyno, 870 ft. to W line, 150 ft. to N line of Blk. 5, Share A-77, Por. 81, Camargo ..... Rigging up.
Mundy and others' No. 1 Salinas, 150 ft. to S and W lines of Blk. 12, Share C-38, Porcions 80 and 81, Camargo ..... T.D. 1,460 ft.; standing.

AVIATOR POOL—WEBB COUNTY

Nueces Dev. Co.'s No. 1 Puig, 150 ft. from W line, 260 ft. from N line of Blk. 12, Edington Subd., Albercas Grant Sur. ..... T.D. 582 ft; drlg.

LAUREL POOL—WEBB COUNTY

Dyck Oil Co.'s No. 2 Garcia & Villareal, 330 ft. W of No. 1 ..... T.D. 2,191 ft; comp. 75 bbls. daily on pump.
L. M. Kaiser's No. 1 Garcia & Villareal, 150 ft. to N and W lines of Blk. 2, Sur. 1,099 ..... T.D. 2,205 ft; coring.
Magnolia Pet. Co.'s No. 1 Garcia & Villareal, 150 ft. from N and W lines of NW NE of Sur. 1,100..... T.D. 2,206 ft; 800 bbls.
Newton Drilling Co.'s No. 1 A. Garcia, 2,550 ft. from S line, 2,340 ft. from W line of Sur. No. 52, 2 miles SW of Carolina Texas Field ..... T.D. 2,100 ft; drlg.
G. B. Parr's No. 1 Gates et al, 330 ft. to S and E lines of Blk. 3, Sur. 272 ..... T.D. 760 ft; drlg.
Reward Oil Co.'s No. 2 B. Rosenberg (Laurel), 306 ft. from S line, 25 ft. from E line of Blk. 15, Sur. 271... T.D. 1,700 ft; drlg.
Reward Oil Co., Sur. 768 ..... Location, 1 mi. SW of Dyck.
Reward Oil Co.'s No. 1 Garcia & Villareal Co., 330 ft. from N and W lines of NW SE of Sur. 1,100..... Location.
R. R. R. Oil Co.'s No. 1 Garcia & Villareal, 330 ft. to N and W lines of Blk. 11, Sur. 338 ..... Location.
Sal-Mar Oil Corp.'s No. 1 Vela, 660 ft. from NW and SW lines of Blk. 16, Sur. No. 1,011 ..... Location.
Smidon Oil & Gas Co.'s No. 1 Vela, 450 ft. to S line, 150 ft. to S line of Blk. 14, Sur. 263 ..... T.D. 3,080 ft; plugged back to 1,835 ft; 20,000,000 ft. of gas.
Smith & Story's (Wolcott & Rehmet) No. 1 Sarah Lloyd, 600 ft. from W line, 150 ft. from S line of SW SE (Blk. 14), Sur. 23 ..... Spudded in.
South Texas Oil Co.'s No. 1 Garcia & Gates, Sur. 272.... T.D. 1,000 ft; drlg.
South Texas Oil Co.'s No. 1 Garcia & Villareal, Sur. 1,099.. Location.
South Texas Oil Co.'s No. 5 Laurel, Blk. 9, Sur. 270 .... T.D. 2,272 ft; 200 bbls. daily.
South Texas Oil Co.'s No. 10 Laurel, 511 ft. to E line, 150 ft. to S line, Blk. 16, Sur. 271 ..... T.D. 2,202 ft; 800 bbls. daily.
Whisenant & Trenchard's No. 1 Duval County Ranch Co., 150 ft. to N and W lines, Blk. 17, Zapata County School Lands, Sur. 101 ..... Spudded in.

MOCA POOL—WEBB COUNTY

Moca Oil Co.'s No. 2 Duval County Ranch Co., 1,650 ft. to N line, 638 ft. to W line of Blk. 23, Share 3, Zapata County school lands ..... T.D. 2,008 ft; abd. dry.

ESCOBAS POOL—ZAPATA COUNTY

Lefevre et al's No. 1 M. Garza Hrs., 330 ft. from NW and SW lines of Blk. 53, C. A. Douglas Subd., Zerro ranch, Comitas Grant Sur. ..... Spudded in.
Norden & Morris' No. 5 Pedro de los Santos, 240 ft. from NE line, 350 ft. from SE line of Share 6, Comitas Grant Sur. ..... T.D. 1,298 ft; set csg.; W.O.C.
The Texas Co.'s No. 17 Measles ..... Making location.
The Texas Co.'s No. 18 Measles, 3,342 ft. to SE lines, 795 ft. to SW lines of Cerrito Blanco grant ..... T.D. 1,212 ft; comp. 75 bbls.
The Texas Co.'s No. 19 Measles, 450 ft. N 74 deg. E of No. 15 Cerrito Blanco grant ..... Location.

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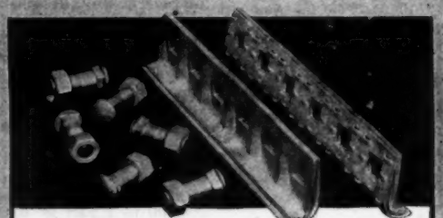

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FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing or transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

Investigate Before Deciding on Reclamation of Oil From B.S.

Has anybody devised a system for salvaging such parts of basic sediment as might be put to profitable use? My work takes me around some of the oil fields a good deal and I see large quantities of what the oil men call "b.s." It seems to be going to waste. Maybe it is because the price received for oil and oil products is so small that it is not worth while to reclaim the oil in this stuff. But times seem to be getting better in the oil business and it seems to me likely that it soon will be worth while to treat this waste product to extract the oil from it if there is any fairly inexpensive way of doing it. I suppose there is much of this basic sediment in the big storage tanks.—R. M. A.

Location of tank batteries, character of sediment, price of oil, cost of treating and other conditions have a direct bearing upon the question of reclaiming the oil in b.s. Some sediments can be treated without much cost and a good grade of oil recovered, while others are not worth the time and cost of rehandling and are burned in the field.

To give a definite answer to your question would necessitate that more data be provided. However, there is an interesting statement on the subject of reclamation of tank bottoms in the recently published Bulletin 348 by C. E. Reistle, Jr., U. S. Bureau of Mines. It is entitled "Paraffin and Congealing-Oil Problems" and it may be obtained from the U. S. Government Printing Office, Washington, D. C., for 55 cents.

This chapter dealing with reclamation of the tank bottoms includes a sketch of a simple treating plant at a field tank station, one that can be installed at a minimum of expense and is suitable to handle the bottoms and make separations by heat alone, or by heating and adding chemicals where necessary.

You will find in The Oil and Gas Journal, June 20, 1929, an interesting article by B. T. Bright, on "Treating Oil by the Use of Chemicals." In the August 1, 1929, issue there is an article by W. T. Doherty on "Process Reclaims Tank Bottom B.S."

Before money is spent in building a plant to handle bottom settlings it might be well to send samples to a laboratory for analysis and recommendations of process for treatment. This would involve a small cost for a chemist's time, but might prove a good investment.

Detection of Underground Water Through Use of Fluorescein

What is fluorescein? Please inform me why this chemical compound is particularly suited to the detection of underground waters. Are there any other dyes or chemical substances suitable for this purpose?—E. M. E.

In U. S. Geological Survey Underground Water Papers, 1906, No. 160, by Myron L. Fuller, fluorescein is described as a coal-tar product also known as resorcin-phthalein, diresorcin phthalein, tetraoxyphthalophenone, uranin and Kruger's indicator.

It can be prepared by heating two molecular weights of resorcin with one molecular weight of phthalic anhydride, on an oil bath, between 190 and 200° C., until aqueous vapors are no longer evolved. The mass is then extracted with hot water and the residue powdered, dissolved in a solution of potassium hydrate, and reprecipitated with an acid. It occurs as crystalline powder or amorphous masses, varying in color from reddish yellow to dark brown. It is insoluble in water, slightly soluble in cold alcohol and more readily in hot, and easily soluble in ether, dilute acids or alkaline solutions. The chemically pure fluorescein, sold ordinarily in the form of a yellow powder, is especially insoluble.

In coloration experiments the sodium or potassium salts of fluorescein, not the pure fluorescein, are used. These are rapidly soluble in alkalies and in water. They are of a reddish brown or slightly orange color. In the presence of alkalies the solution is red by transmitted light and bright green by reflected light—a phenomenon known as green fluorescence.

The red color shown by transmitted light is not apparent in very dilute solution, but by the use of a long tube filled with the alkaline liquid the green appearance shown by reflected light is apparent when extremely small quantities of fluorescein are used. For a flow indicator it is important to use fluorescein of good quality, as otherwise the coloration will not be visible in a solution sufficiently dilute. The commercial article varies greatly in intensity of fluorescence according to the purity of the materials from which it is manufactured and the care used in its preparation and storage.

Nine different samples from the market examined by M. Marbouthin (in France) had greatly different fluorescent powers. With the fluoroscope their limits of visibility ranged from 1 part in 500,000,000 to 1 part in 10,000,000,000. The most practical test of the applicability of a given sample of fluorescein seems to be that when suspended by water it should show with the fluoroscope a perceptible fluorescence in a dilution of 1 part in 10,000,000,000. If weaker materials are used it is of course necessary to use larger quantities.

Any water-soluble dye may be used for the purpose of underground water detection so long as it will produce a trace of color under large dilutions and not be subjected to removal by filtering or decomposition through the action of soil acids or alkaline materials. Such dyestuffs as fluorescein and eosin are adapted particularly for this use because of their stability and ease of detection.

Doesn't Understand Some of the Terms Used in Drilling News

In reading The Oil and Gas Journal I meet a good many terms, abbreviations, etc., the meaning of which I do not understand. Here are some of them: Fish, derrick, plugging, T.D., S.D., Drlg. I will thank you for enlightenment about these.—J. D. H.

"Fish" is the term applied to drilling tools, casing, bailer, measuring line or anything else stuck in the well hole and necessitating a fishing job. Sometimes lost fishing tools themselves constitute the fish.

"Derrick," as used in drilling reports, means that a derrick has been erected on the location chosen for a well. The next step is bringing the required drilling tools to the site, indicated in drilling reports by the words "moving in." Then comes "rigging up."

"Plugging" refers to the operation of filling a well hole or part of it (literally plugging it) for any one of several reasons. Cement plays an important part in the plugging operation. One common reason for plugging is to shut off bottom water. Another is that neither oil nor gas has been found at the lower levels to which a well has been drilled, but that one or both have been found in a stratum nearer the surface, and by plugging back to this producing horizon the oil or gas at that level, passed up at first in the hope of finding something better at a lower depth, may be recovered. In the case of an abandoned well too the law requires that the hole be plugged in order that any water in it may not reach other wells in the neighborhood, injuring or destroying them.

The meanings of the abbreviations you quote follow: T.D., total depth; S.D., shut down; Drlg., drilling.

Why Temperature of Oil Falls as It Is Brought to the Surface

I want to ask for some information concerning the causes of the drop in temperature of oil as it rises to the surface. Just what are the causes of this drop? How much of a difference is there in the temperatures at the top and the bottom of the hole?—E. R. K.

The drop in the temperature of oil as it flows to the surface from the sands is caused partly by the expansion of the gas which accompanies the oil and partly by the cooling effect of the formations above those producing the oil. Expansion of the gas is the more important of these two causes. In his work on "Function of Natural Gas in the Production of Oil," H. C. Miller, senior petroleum engineer of the U. S. Bureau of Mines, tells of a flowing well in Texas in which the oil and gas were 42° F. cooler at the casinghead than they were at the bottom of the hole. This well, which was 3,389 feet deep, was flowing at the rate of 300 bbls. of oil and 374,000 feet of gas daily through 5 1/4-inch casing. At the bottom of the well, where the pressure was 325 pounds to the square inch, the temperature of the oil and gas mixture was 124° F., but at the casinghead, where a pressure of 50 pounds to the square inch was maintained, the temperature was 82° F.

In another Texas well, 2,899 feet deep, in which the production was pinched back to 50 bbls. of oil and 27,500 feet of gas daily, flowing through 6 5/8-inch casing, the temperature of the oil and gas at the bottom of the well was 127° F. The well pressure at this point was 310 pounds to the square inch. At the casinghead, where the pressure ranged from 10 to 25 pounds to the square inch, the temperature of the oil and gas was 86° F., a drop of 41 degrees.

Production tests on wells in the Salt Creek Field in Wyoming showed a relation between the fluid temperature at the well head and gas-oil ratios. The tests indicated that the temperatures at the casinghead usually are higher when gas-oil ratios are low than when excessive volumes of gas are produced with the oil. When the volume of gas accompanying the oil to the surface is greatly in excess of that needed for efficient flow, large quantities of gas expand in the flow tube without doing a corresponding amount of useful work. This expansion causes increased cooling of the rising mixture and results in a lower temperature at the well head than would be found if the gas-oil ratios had been lower.

The relation between temperature and gas-oil ratios was observed also in the Wellington-Fort Collins district, where invariably the lowest fluid temperatures (measured at the well head) were found on wells of high gas-oil ratio. Incidentally the highest well-head temperature in this area was on a well making 60 per cent water.

Why Was It Called That?

DRIVE-PIPE

Drive-pipe is so called because it literally is driven through the surface soil to the bedrock at the outset of drilling operations where caving or flooding makes it impractical to spud a hole and set ordinary casing. Drive-pipe differs from casing in that it is heavier and is threaded in such a way that the ends of the joints meet inside the coupling, thus relieving the strain on the threads during the driving operation. A steel drive-shoe, with a cutting edge, is screwed to the lower joint. The driving is done with a pair of drive clamps attached to the wrench square of the stem below the pin.

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These pastes are scientifically compounded from the highest grade materials. They have extraordinary lubricating value. When applied to packings at regular intervals friction is reduced, maximum efficiency obtained, and the life of packings in service prolonged.

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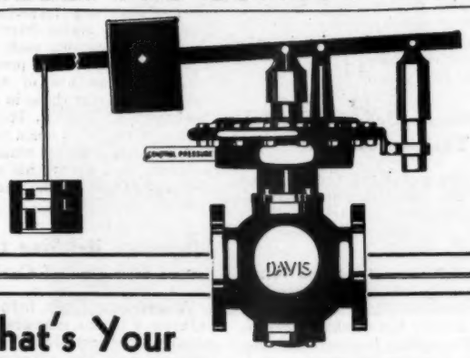

What's Your Gas Pressure Reduction Problem?

The automatic regulation of gas service pressure is a problem that presents itself in many different forms. Pressures and operating conditions vary widely.

The success of any installation depends largely upon the choice of a valve of proper design.

Davis Regulators are made in various types. There is a design best suited for every condition.

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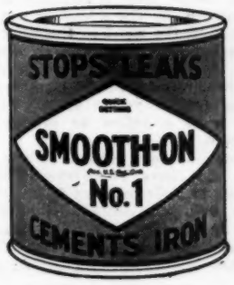

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TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the questions is considered to be confidential.

Questions requiring a discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Numerous Dyes Available for Coloring Gasoline

We would like to have a list of the different dyes that are used producing the various colored gasolines. How are the dyes dissolved and what quantities are used? Is there any reason for coloring gasoline aside from simply a trade practice? —W. C. M.

The first extensive use of oil soluble dyes for artificially coloring gasoline was during the war for the purpose of identification. At the present time a large part of the gasoline sold at retail is dyed as a safety measure to prevent the gasoline from being used for purposes other than motor fuel. There are other reasons for coloring gasoline. Some gasolines are artificially colored in order to give the product a distinctive color for marketing purposes, the intention being to use a particular color for promoting sales and to serve in a manner similar to a brand name. A slight off color or tinge may be covered by the deeper color of the dye, so advantage may be taken of this to reduce the treating expense by finishing something short of 30 color, that would otherwise be required. Traces of blue dyes are employed to some extent as color neutralizers; the quantity not being sufficient to impart a color to the gasoline, the action being similar to that of blueing as used in the laundering of white materials.

A complete article on the use of dyes for the coloring of gasoline, by Egloff, Morrell and Truesdell, was published in The Oil and Gas Journal, March 5, 1931, page 133, from which the following is abstracted:

The selection of a suitable dye for some desired color is largely a matter of experience, as the dye does not always impart to the gasoline the color that is to be expected. Some blue dyes will produce a red or green color when added to gasoline. Orange, red or blue may be obtained from a yellow dye. A green dye may yield a yellow or orange colored gasoline.

These authors present a long list of dyes that have been investigated with respect to their behavior in gasoline. The table following contains a selection of two dyes under each color which were found true to color name when used in cracked Mid-Continent gasoline.

DYES FOR GASOLINE

Color	Dye name—	Quantity (lbs./ 1,000 bbls.)	Fading time (hours)
Red	Oil Red No. 322 ..	1.43	+50
	Oil Red Y292	1.57	+50
Blue	Oil Imported Blue	1.40	+50
	Oil Blue MG	2.45	+50
Yellow	Oil Yellow AX ...	7.50	+50
	Oil Yellow No. 21.	7.50	+50
Green	Oil Green D2180..	7.50	+50
	Gaso Green 2737..	0.42	+53
Orange	Oil Orange	2.10	+50
	Oil Orange AU ..	0.35	+50

Samples of gasolines, containing the dyes in the proportions shown, were exposed for at least 50 hours, night and day, of which approximately 8 hours a day was sunlight; the results of these tests are indicated in the table. The time that any gasoline is exposed to direct sunlight in a service pump would probably not exceed six hours and perhaps the average exposure would not be more than one hour. The dyes mentioned here should be found satisfactory under these conditions.

All of these dyes are soluble in gasoline but are more soluble in benzol. Under some conditions it is convenient to make concentrated benzol solutions or working solutions in gasoline. The table below will be found useful for estimating from a small sample the quantity of dye required for coloring large quantities of gasoline.

QUANTITY OF DYE REQUIRED

Sample Mgs./100 c.c.	Lbs. per 1,000 bbls
0.10	0.35
.20	.70
.30	1.05
.40	1.40
.50	1.75
.60	2.10
.70	2.45
.80	2.80
.90	3.15
1.00	3.50

The total cost for coloring gasoline should not exceed 0.4 cents per barrel.

Volume and Quality of Gas Produced From Heavy Fuel Oils

How many cubic feet of gas will be generated from a 15-degree A.P.I. gravity fuel oil? What will be the B.t.u. value per cubic foot? Will any residue result and what quantity?—R. B. K.

The volume of gas produced from cracking an oil will depend on the character of the oil and the cracking conditions, including time, temperature and pressure employed. Usually the yield will vary between 300 and 800 cubic feet per barrel of 42 gallons, but if exceptionally high temperatures are used the volume of gas may exceed 2,000 cubic feet per barrel of oil cracked.

Dr. Gustav Egloff discussed the generation of gas from heavy oils before the American Gas Association, at Cleveland, Ohio, May 21, 1930, as published in Universal Oil Products Co.'s Booklet No. 77. The data following are from this source.

A selection of the heavy oils having a gravity close to 15° A.P.I. has been made from those listed, the results being obtained from actual runs or cracking experiments.

GAS WHEN CRACKING HEAVY OILS

Gravity of oil, A.P.I.	Gas per bbl., cu. ft.	Residue coke lbs. per bbl.
15.4	838	56
15.4	785	42
13.7	874	72
15.6	609	50
17.3	543	91
16.7	637	103
17.2	855	89

These oils were cracked at temperatures of 800° to 900° F., under a pressure of 100 to 150 pounds per square inch. The heating value of the gas from a cracking still is high, in most cases about 1,250 B.t.u. per cubic foot. The residue from this type of operation is petroleum coke, approximate heating value 16,000 B.t.u. per pound. The quantity in pounds per barrel of the charging stock is shown in the table.

Doctor Egloff states: "Those outside the petroleum industry probably do not realize the large amount of gas now produced by the cracking process and from the distillation of crude oil. It is estimated that during 1930 over 275,000,000,000 cubic feet of gas was produced by cracking units and 270,000,000,000 cubic feet from crude oil distillation. The gas from these two sources is more than the country's entire production of manufactured gas. This petroleum gas is distinctive in its properties, being high in calorific value, which makes it valuable for enriching low fuel gases."

Significance of Several Solubility Tests of Asphalt

What is the practical significance of the test for total bitumens in asphalt or solubility in carbon disulphide? The same for asphaltenes and carbenes?—C. H. B.

The asphaltenes are hard and brittle including the hydrocarbons of the asphalt group that are insoluble in petroleum ether of 88° gravity but soluble in carbon disulphide. This group imparts hardness, so the larger the percentage of asphaltenes the harder the asphalt. They are considered to be produced by the combination of oxygen or sulphur and the petroleum resins.

Bitumen is the broad term employed to include all the hydrocarbons that are contained in the several grades of asphalt. It is commonly thought that all of these are fully soluble in carbon disulphide, but this may not always be true and it is better to indicate total bitumens from the sum found by analysis and refer to bitumen soluble in carbon disulphide. The bitumens constitute the body of asphalt.

The carbenes include that group of hydrocarbons represented as the difference between the quality of asphalt that is soluble in carbon disulphide and the portion soluble in carbon tetrachloride. Certain hard native asphalts contain carbenes but they are not found in petroleum asphalts unless they have been formed through overheating or overblowing. The percentage of carbenes in natural asphalts may be reduced by fluxing or blending but do not disappear in similar blends of petroleum asphalt. The quality of an asphalt is lowered with an increase in carbenes, which should not be present in quantities exceeding 0.5 per cent.

State Laws Regulating the Flashpoint of Kerosene

Do you have information as to the essential points in state laws relating to kerosene? We are particularly interested in the flashpoint which different states require.—C. S. L.

The most important legal regulation concerning the quality of kerosene that may be sold is the flashpoint. Many of the states follow the requirement of the U. S. Government, i.e., the flashpoint shall not be lower than 115° F., when tested according to the A.S.T.M. method in a Tag closed tester. A few states permit a lower flashpoint and some require that it shall be higher. This specification may be summarized as follows:

The states that require a minimum flashing temperature of 115° F., in a closed tester, include Alabama, Arizona, Colorado, Florida, Georgia, Illinois, Louisiana, Mississippi, North Dakota and South Dakota. The specification is 100° F. in Iowa, North and South Carolina. Wisconsin requires the flash to be above 105° F. in an open cup. The states of Kansas, Montana, Texas and Wyoming have adopted 110° F. Nebraska requires 112° F. The legal limit is 120° in Indiana, Michigan, Minnesota, Oklahoma and Tennessee. Arkansas has stipulated a minimum firepoint of 140° F.

The other states not mentioned in the above list have no legal flashpoint and/or do not have any inspection department. Some of the states have adopted additional specifications such as color, gravity, sulphur and other properties, but the majority make use of the government specifications for these in addition to the flashpoint of 115° F. Most of the kerosene now marketed has a flashpoint above 120° F. and for this reason there is not so much said about this specification in recent years as in the early days of the industry.

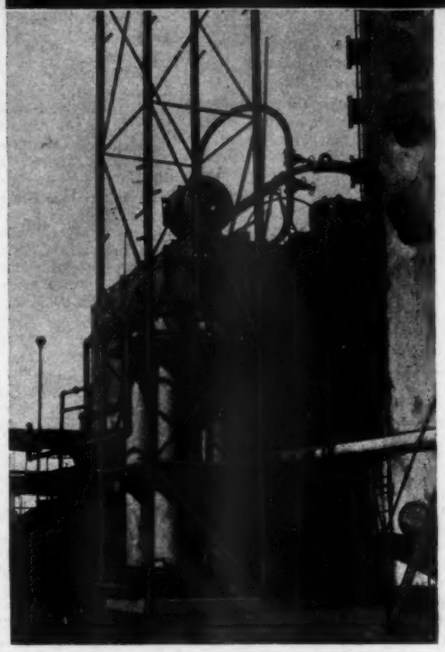
Literature Relating to Manufacture and Use of Carbon Black

Where can I get information with reference to the manufacture and disposal of carbon black? What in your opinion are the circumstances surrounding this business?—C. S. M.

The Oil and Gas Journal has published many articles relating to the manufacture and use of carbon black. A few of these may be mentioned: Carbon Black Industry, June 16, 1927, page G-198; Overproduction, May 1, 1930, page 76; Pressure Process, April 2, 1931, page 114. See also the U. S. Bureau of Mines Bulletin 192.

Carbon black is used for making printer's ink, carbon paper, hard rubber articles, such as telephone and electrical instruments, insulators, paints and polishing materials. The largest consumption is in the manufacture of automobile tires, which requires about half of the production. The annual production is approximately 300,000,000 pounds, which for a number of years has exceeded the demand. The industry reported a decline in production for 1931 to 280,907,000 pounds, representing a reduction of 26.1 per cent from the high record of 379,942,000 in 1930. The report for the year 1931 (see The Oil and Gas Journal, June 2, 1932) indicates that there were 58 plants in operation during the year. These produced carbon black valued at $8,621,000, or an average of 3.07 cents a pound, the yield being 1.44 pounds per 1,000 cubic feet of gas.

Shop assembly of exchangers.



Vogt exchanger installation at the Waggoner Refining Co. Inc., Electra, Texas.

Manufacturers of: Heat Exchangers, Water Tube Boilers, Drop Forged Steel Valves and Fittings, Oil Refinery Equipment, Ice Making and Refrigerating Machinery.

Guarantees *Exceeded!!*

The Waggoner Refining Company, Inc., placed an order for two batteries of exchangers, each to cool 1200 barrels of fuel oil per day with 3000 barrels of crude per day.

The actual operating conditions are:

Fuel oil inlet temperature....690 deg. F.
Fuel oil outlet temperature ..250 deg. F.
Crude oil inlet temperature...160 deg. F.
Crude oil outlet temperature..365 deg. F.
20% of the crude oil vaporizes.

"Your performance guarantees have been exceeded and the exchangers are satisfactory in every respect" quoting the purchaser. Such records are typical of Vogt heat transfer equipment.

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New York Philadelphia Chicago Dallas Cleveland

Vogt HEAT *Exchangers*

NATURAL GAS DEVELOPMENTS

Court Reserves Decision on Panhandle Gas Case

AUSTIN, Tex., Feb. 6.—Decision was taken under advisement by a three-judge Federal court, after hearing at Austin, on application of Cities Service Gas Co., Texhoma Natural Gas Co. and the Canadian River Gas Co., for permanent injunction to restrain the Texas Railroad Commission from enforcing proration orders under the recent oil and gas conservation law. Temporary injunctions are in effect.

Circuit Judge Hutcheson during the hearing pointed out that the court has sustained the State's right to prorate oil production on the ground the curtailment was to prevent waste, while the gas suit involved whether the State should divide a market and did not include the issue of production. Judge Hutcheson said the plaintiffs in this case had "gone to great expense to obtain a market for their production," and now the question was whether the State should intervene and force them to divide their market with less far-sighted operators who came into the field later and did not contribute to the original expense.

Assistant Attorney General Maurice Cheek argued the State was trying to protect landowners and operators from drainage that would dissipate their property.

Houston Gas & Fuel Co. Reports 1932 Operations

HOUSTON, Tex., Feb. 6.—The Houston Gas & Fuel Co. has paid the city $42,143.21 for 1932, in accordance with the franchise and profit-sharing agreement between the company and the city. This compares with $49,326.94 paid for 1931.

The report showed that the company operated in the city during 1932 with a net loss of $420,185.13. This loss is raised to $614,351.89 when depreciation of property, amounting to 1.9 per cent, allowable under the profit-sharing agreement, is added. The loss, including depreciation charged on the property in the city and suburban territory, was set at $621,034.57.

According to the profit-sharing agreement with the company, the company pays the city a base franchise tax of $500 annually and 2 per cent of the gross receipts, and divides equally with the city all excess profits above an 8 per cent return on the value of its property and allows a 1.9 per cent yearly depreciation on the property.

The report shows that the company did not make any profits at all and that the 2 per cent on the gross receipts came to $41,643.21, which with the $500 base tax, brought the total amount due the city to $42,143.21.

The gross receipts came to $2,082,160.69 and was made up of $1,965,052.70 in cash receipts from gas sales, and $117,017.99 in cash receipts from merchandise and jobbing sales.

The operating revenue from gas sales totaled $2,114,852.24, compared with operating and maintenance expense of $2,585,555.28, a loss of $413,703.04. A loss in other incomes of $6,482.09 was added to this, bringing the total operating loss to $420,185.13.

A statement of the returns to the company, allowable under the profit sharing agreement, showed the valuation of the company's property in the city on December 31, 1931, was $10,855,737.09, and that the 8 per cent allowable on this valuation would amount to $868,458.96. In addition to this, an 8 per cent return allowable on $56,491.04 in 1931 capital and expenditures came to $3,024.82.

These two allowances, plus the 1.9 per cent of depreciation amounting to $194,166.76, brought the amount which the company was allowed to earn in 1932 to $1,066,250.54. This plus the $420,185.13 actual loss brought the 1932 deficit to $1,486,435.67.

Chicago Asks Reductions From State Commission

CHICAGO, Feb. 6.—The city of Chicago has demanded of the Illinois Commerce Commission a 20 per cent reduction in the rates home users pay for gas. If granted, the rate cut ultimately would apply to many other Illinois cities and communities, attorneys said.

The brief applies only to the Peoples Gas, Light & Coke Co., which serves Chicago, but many circumstances in the case apply also to the Public Service Co. of Northern Illinois, and the Western United Gas & Electric Co. The city demanded that the Peoples company properties be reduced in valuation from $145,092,913 to $100,560,310, for rate making purposes.

To bring about the rate reduction, the city's attorneys declared the price paid by the Peoples company at Joliet, Ill., for natural gas piped there from Texas should be trimmed from 32 to 22.18 cents per 1,000 feet. The domestic reduction demanded was from 18½ to 16.36 cents a therm for cooking and from 16.4 to 10.48 cents a therm for water heating.

UTILITY PETITION RACKET

A man circulating a petition went to the office of the Pennsylvania Public Service Commissioners and, after questioning, admitted circulating a petition at St. Mary's, Elk County, Pennsylvania, for presentation to the commission. This petition had to do with rates charged by the Saint Mary's water company. This man admitted assessing those signing the petition 50 cents, that each signer had agreed to pay him an additional $1.50 should the commission act favorably on the petition and that signatures were refused when the 50 cents was not forthcoming. The Public Service Commission believes that similar rackets may be going on in other communities where there may be dissatisfaction with public utility rates and warns that such petitions should be ignored.

TO BUILD LYCOMING LINE

WELLSBORO, Pa., Feb. 6.—The Lycoming Producing Corp., one of the leading producers of natural gas in the Tioga and southern New York fields, with headquarters at Pittsburgh, Pa., has final plans in progress for construction of a 20-inch trunk pipe line to connect the Hebron and Tioga gas fields. The new line, to cost upward of $100,000, will tie up with the company's recently completed line from Tioga County, Pennsylvania, northward to Syracuse, N. Y. Construction work on the new project will start as soon as weather conditions permit.

ONTARIO RATE NEGOTIATIONS

CHATHAM, Ontario, Feb. 4.—Negotiations have been commenced between municialities and natural gas companies operating in southwestern Ontario, with a view to arranging a downward revision of the present natural gas rates. The negotiations were initiated on the suggestion of Charles McCrea, minister of mines, to whom representations were recently made by some of the municipalities concerned. The companies principally affected are the Southern Ontario Gas Co. of Buffalo, and the Union Gas Co.

Los Angeles Rate Case to U. S. Supreme Court

LOS ANGELES, Calif., Feb. 4.—To represent the State Railroad Commission before the U. S. Supreme Court in the Los Angeles Gas & Electric Corp. rate case, Arthur T. George and Ira H. Rowell, attorneys for the commission, have left for Washington, D. C.

Vincent Kennedy, examiner of the commission, in charge of the state body's local office, stated that the case involves fundamentally important questions as to state regulation of public utilities, as well as some $3,000,000 of impounded funds to be distributed to customers of the company in Los Angeles and Pasadena if the commission's rate reduction is upheld.

The case has been before Federal courts since about November, 1930, when the commission ordered a 9 per cent reduction in the gas company's gas rates, both domestic and commercial.

A Federal three-judge court granted an interlocutory injunction, but later sustained the commission. The injunction was continued in effect, however, pending an appeal by the company to the Supreme Court.

British Columbia Line Is Now Being Projected

CHATHAM, Ontario, Feb. 4.—Natural Gas Development Corp., Ltd., recently organized at Vancouver, British Columbia, is planning a systematic drilling campaign in the Fraser Valley area with a view to piping the production to Vancouver and New Westminster. E. S. Estlin, formerly natural gas commissioner for Ontario, will be engineer in charge, with headquarters at Vancouver.

The object of the company will be primarily to find a source of supply in the Fraser Valley area, within approximately 25 miles of Vancouver. If gas is developed in other British Columbia areas steps probably will be taken to utilize the production.

There has been extensive drilling for oil in the Fraser Valley, and though no commercial oil production was secured, a number of small gas flows were encountered. The drilling indicated that gas was distributed over a wide area, and mostly at comparatively shallow depths. In the Sumas district, individual residents have utilized gas for many years from small local wells. In recent drilling by the International Pipe Lines, Ltd., fair commercial flows were encountered in several wells on Lulu Island, near Steveston. No attempt has yet been made to utilize this production in a large way, or to carry on systematic drilling with a large commercial gas production as an objective.

It is understood the first drilling by the company will be underatken in the Boundary Bay area, where a deep test drilled some years ago by the Boundary Bay Oil Co. indicated possibilities of commercial production.

CHICAGO'S GAS ARRANGEMENT

CHICAGO, Feb. 6.—The arrangement with pipe line owners whereby Peoples Gas, Light & Coke Co. is enabled to supply temporarily extra Texas natural gas at any time to large users without increasing the rental it pays to pipe line owners, has been continued indefinitely pending completion of negotiations on this point. This is an exception in the gas contract, which otherwise provides for a rental based on maximum consumption and increasing each time previous record is exceeded. Rental is the main factor in the company's cost of gas, the purchase price for the actual amount of natural gas taken being small.

This arrangement was originally to run only to October 31, 1932. It was extended, however, to December 31, last, and again extended to January 16.

Seek Michigan Franchises as Basis for Pipe Line

MOUNT PLEASANT, Mich., Feb. 4.—Strong efforts are being made to find a market for the natural gas in the Central Michigan Field and numerous towns and villages are more interested in the fuel than ever before. The second of eight franchises for natural gas, chiefly in Gratiot County, which are being sought by Lee S. Miller and J. P. McCloskey, was granted, when Alma voters gave the proposition 1,124 test ballots against 66 no votes.

The village of Shepherd voted in favor of an identical franchise a week or so ago, as did the hamlet of St. Louis. Similar franchises also have been offered to Hemlock, Wheeler, Merrill, Breckenridge and Ithaca but so far the councils of the respective communities have not sanctioned the proposals. In the event a majority of the towns, according to Messrs. Miller and McCloskey, grant the franchises they will then go before the State Public Utilities Commission and ask for a permit to construct a pipe line from the Central Michigan Field to the several towns and villages. The two men have told the various governing bodies that they are acting as trustees for a company to be set up later, which presumably would build the line and conduct the distribution.

In the meantime the Michigan Natural Gas Corp. has an application for a pipe line to Alma, Ithaca, Breckenridge and St. Louis pending before the public utilities commission. The Michigan Natural Gas Corp. has entered into tentative contract with the Michigan Federal Utilities, now servicing artificial gas in several of the Gratiot County towns, for the use of natural gas.

A natural gas association has been organized in Clare for the purpose of furthering the development of the Clare County gas field. The McKay-Mercier Field is about 7 miles north of the city of Clare and citizens now are studying the possibilities of the city entering into the gas business on its own, building a line from the wells and supplying consumers. W. H. Caples was elected president of the gas association; C. C. Harris, secretary; and J. S. Bicknell, treasurer.

The Clare gas field is reported to have a potential production of 30,000,000 feet.

NORTHERN GAS LINE SURVEY

Northern Gas & Pipe Line Co., Omaha, Neb., is reported making preliminary surveys for a line from Sioux Falls, S. D., through Luverne, Slayton, Pipestone, Fulda, Worthington, Jackson, Windom, Fairmont, St. James, New Ulm and Mankato, Minn., to connect with the company's line from Mason City, Iowa, to Owatonna. The line would be about 200 miles long.

GAS LINE TO SPOKANE

According to James L. Stone, vice president of the Spokane Gas & Fuel Co., a pipe line to bring Montana natural gas to Spokane should become a reality within five years. Mr. Stone further states: "The proximity of oil fields with their voluminous by-products of natural gas waiting for the installation of a pipe line to market, will serve as an enticing bait for capital."

Eliminating the Guesswork from Stainless Steel Specifications

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for resistance to high temperatures

USS 25-12 is highly resistant to a wide variety of corrosive agents, and especially to an appreciable amount of sulphur in surrounding gases.

It is austenitic and hence not intended for those applications requiring hardening by heat treatment. Its ductility is such as to provide for a considerable amount of drawing and forming.

USS 25-12 is the ideal steel for most high temperature services. It does not oxidize rapidly below 2100 degrees F., and in addition, retains a large proportion of its strength and toughness throughout its range of application.

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Chromium Alloy Steels		Chromium Nickel Steels
Ferritic		*Austenitic*
USS 12 & 12Z		*USS 18-8*
USS 17		*USS 18-12*
USS 27		*USS 25-12*

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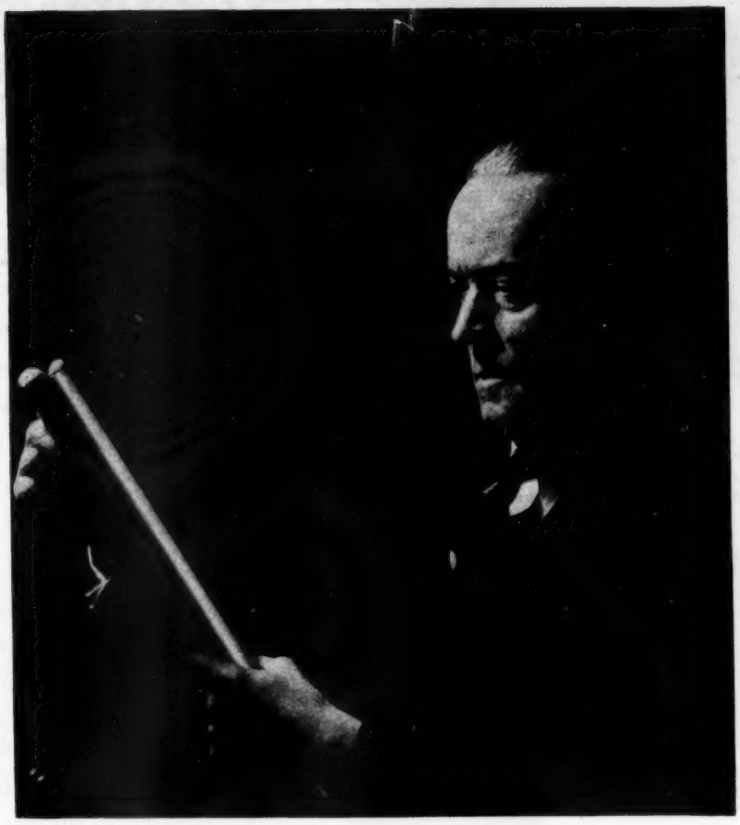
UNITED STATES STEEL CORPORATION



In this day when public demand for stainless steel has become so insistent, manufacturers are faced with the task of selecting from the many types of Stainless Steel, the one most ideally suited to specific needs.

Such selection involves consideration of the variation in corrosion-resistant characteristics of the various types as well as careful analysis of the physical characteristics as to strength and workability.

Our metallurgists will be glad to work with you in the necessary studies and in specifying the ideal Stainless Steel for your needs.

USS **STAINLESS AND HEAT RESISTING STEELS**

U S S CHROMIUM-NICKEL ALLOY STEELS ARE PRODUCED UNDER LICENSES OF THE CHEMICAL FOUNDATION, INC., NEW YORK, AND FRIED. KRUPP A. G. OF GERMANY

PERSONAL PARAGRAPHS

R. K. Mellon has been elected director of Gulf Oil Corporation and Union Gulf Corporation.

• • •

C. W. Nave, Brazilian manager for the Atlantic Refining Company, sailed from New York last week for Rio de Janeiro.

• • •

H. L. Blevans has been appointed assistant district sales manager for the San Francisco district of the Union Oil Company.

• • •

Chapin K. Morris is now representing Bradford Motor Works in Oklahoma and Kansas from Tulsa. He is a son of President George B. Morris.

• • •

A. Beeby Thompson, O.B.E., left London for Bagdad in connection with prospective developments of the British Oil Development Company, Ltd.

• • •

Mark Ashton, of the Pacific Western Oil Company, recently addressed the Los Angeles Petroleum Accountants Society on "Accounting for Insurance."

• • •

Donald J. Munroe, division geologist in the southeastern states for Sun Oil Company, has moved his headquarters from Jackson, Miss., to Hattiesburg, Miss.

• • •

L. M. Rakestraw, chief engineer of the Foster Wheeler Corporation, arrived in Los Angeles, Calif., on the Steamship Santa Paula, coming via the Panama Canal.

• • •

H. J. Lockhart, vice president and general manager, Parkersburg Rig & Reel Company, Parkersburg, W. Va., has just completed a visit at the Tulsa district office.

• • •

W. W. Boyer, chief geologist for the Consolidated Royalty Company, has returned to his Casper, Wyo., offices from Cedar Rapids, Iowa, where he was called by the death of his uncle, John Reed.

• • •

E. P. Lambreth, with the Simms Oil Company, Dallas, Tex., and Miss Verna Sklibos of that city, were married on January 26 and after a short honeymoon trip to West Texas, returned to live in Dallas.

• • •

Lee Gower, geological scout for the Sinclair Prairie Oil Company, has been transferred from the San Antonio, Tex., district, to Shawnee, Okla. During the main part of the East Texas boom he scouted the Longview area.

• • •

Robert E. Dake, aviation division of the Kendall Refining Company, Bradford, Pa., arrived in Texas during the past week on an air tour of the country, visiting aviation fields and distributors of the company's products.

• • •

Robert C. Chenoweth has been appointed field representative in the Oklahoma territory for United States Rubber Company (industrial division). Mr. Chenoweth was representative for Woobank Pump & Machinery Company, Tulsa, for several years, but for the last few months has been living in Chicago.

• • •

The Rocky Mountain Association of Petroleum Geologists recently elected the following officers: A. E. Brainard, Continental Oil Company, president; Herman F. Davies, California Company, vice president; J. G. Bartram, Stanolind Oil & Gas Company, vice president; G. G. Law, Geological Survey, secretary.

• • •

Dr. A. C. Veatch, formerly chief of the exploration department of the Sinclair Oil Company, was painfully burned while fighting a fire at his home in Port Washington, Long Island. His wife, who was ill, had to be carried from the house by the firemen. Valuable books and papers were destroyed in the fire.

J. R. Pemberton, California oil umpire, has entirely recovered from a severe cold which incapacitated him for the past 10 days.

• • •

Walter W. Trout, formerly district manager for the Lufkin Foundry & Machine Company, Tulsa, has been transferred to Dallas, Tex.

• • •

William G. Post, well known in eastern petroleum trade circles for the past 24 years, has opened offices at 1 Broadway, New York, where he will conduct a petroleum brokerage and tanker chartering business.

Men of the Industry

C. L. HIGHTOWER

C. L. Hightower, recently elected general chairman of the petroleum section of the National Safety Council, is insurance and safety director of the Texas Pacific Coal & Oil Company, Fort Worth, Tex. He was born August 5, 1902, in Navarro County, Texas, and attended school in Midlothian, Tyler, and Dallas, in that State. He received three years law work and one year of public speaking and journalism at the Dallas Technical School. He has addressed many audiences on the subject of safety work, during the last five years. Besides preparing many papers he edits a safety news bulletin for his company each month and helps others to prepare papers to be read at various meetings and conventions. In 1922 he married his schooldays sweetheart, and they have two daughters, aged 6 and 8 years.

Mr. Hightower started to work for the Dallas Power & Light Company in Dallas, in April, 1922, remaining with that company until he joined the Texas Pacific company, January 1, 1927, as insurance and safety director. The accident frequency rate of the company which was 72.8 when Mr. Hightower entered its service in 1927, dropped to 4.4 in 1931, and to 3.9 for the seven-month period ending July 31, 1932.

Mr. Hightower has one hobby, safety work. He plays golf now and then.

The plans of the petroleum section of the National Safety Council for the next 12 months call for an intensified educational program in the industry, with the view of more actively interesting individual operators and small companies in safety work.

J. H. Tromwell and H. W. Lewis, drilling contractors of Wichita, Kans., were visitors in Tulsa last week.

• • •

W. H. Borie, vice president in Argentina for The Texas Company, sailed from New York last week for Buenos Aires.

• • •

W. T. Hardendorf, of Denver, Colo., interested in the Intermountain Water & Power Company, was in Casper and Salt Creek, Wyo., recently.

• • •

H. W. Coleman, assistant sales manager for the Simms Oil Company, Dallas, Tex., has been laid up in St. Pauls Hospital in that city, convalescing from a minor operation.

• • •

R. C. Conkling, who has been district geologist for the Shell Petroleum Corporation, San Angelo, Tex., has been transferred to the division offices of the company at Houston, Tex.

• • •

Will Reid, president of the Hancock Oil Company, was recently elected president of the Independent Petroleum Association of California, succeeding A. L. Marsten of the Mohawk Oil Company.

• • •

W. D. Loucks, chairman of the board of directors of the Barnsdall Corporation, and James A. Dunn, vice president and secretary, arrived in Los Angeles last week from New York preparatory to making a tour of inspection of the Barnsdall's holdings in California.

• • •

Earl Oliver, of Ponca City, Okla., chairman of the stabilization committee of the American Institute of Mining and Metallurgical Engineers, is in New York on business and is undertaking some organization work preliminary to the annual meeting of the A.I.M.E.

• • •

Dr. Sterling Talmadge, of Socorro, N. Mex., has been elected to fellowship in the Geological Society of America. Membership in this society is by invitation only. Doctor Talmadge has been the professor of geology and mineralogy at the School of Mines for several years.

• • •

L. E. Woolley, general superintendent of refineries for the British American Oil Refineries, Inc., Toronto, Ontario, accompanied by D. W. Monroe, superintendent of the Montreal refinery, and R. L. Rude, superintendent of the Toronto refinery, are visiting Mid-Continent points.

• • •

Joe Holmes, production engineer for the Lago Petroleum Corporation, Maracaibo, Venezuela, is spending a vacation in the United States. During the deer season he was a guest of Jon Long of the Petroleum Equipment Company, bagging his limit of game in the mountains near Fredericksburg, Tex.

• • •

E. F. Guidinger, manager of crude oil purchases and sales, Phillips Petroleum Company, Bartlesville, Okla., made a trip by automobile and airplane to the death bed of his mother, Mrs. John P. Guidinger, York, Neb., last week. Mr. Guidinger reached his mother just before she passed away. Her body was buried at Schuyler, Neb., the former home of the Guidinger family.

• • •

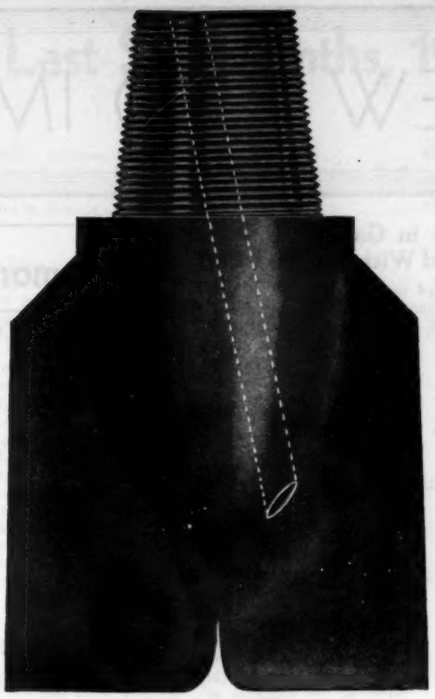
W. R. Boyd, Jr., executive vice president of the American Petroleum Institute, will return to his office in New York this week after spending the major portion of four months in Texas, where he gave testimony before a commissioner in the ouster suit that Attorney General James V. Allred brought against a group of oil companies and the Institute. When he concluded his testimony he went to a clinic, but has advised his associates and friends that he has recovered his strength after resting at his farm home near Teague, Tex.

SPEED and ECONOMY

THE TREND OF THE MODERN AGE

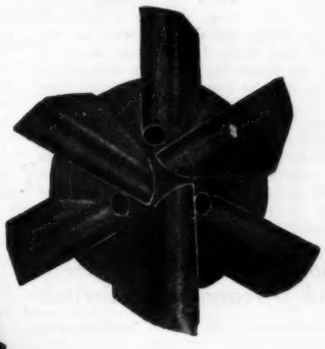
Speed means the saving of money if you can depend on the equipment. Brewster products assure efficient operation in less time. The Brewster Straight Hole Bits drill rapidly through the most difficult formation and keep the hole straight and full gauged all the way. The cutting edges on these Bits are dressed with "CARBOLITE," an abrasive heat resisting metal, which gives a finish that assures the lower production cost.

An additional aid to assure a straight economical hole is by using the Brewster Straight Hole Guide which conveniently attaches at intervals to the drill stem. They guide and keep the stem from leading off which means straighter and more economical holes.



GUMBO BIT
Pat. No. 1,206,488

Six Blade Straight Hole Rock Bit



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The Brewster Straight Hole Guide made in any size and of Chrome Nickel Steel, faced on the smooth surface with Tungsten Carbide metal.

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Export Distributors: Acme Well Supply Co., Inc., 136 Liberty St., New York City.

NEW AND IMPROVED EQUIPMENT

Leakage in Gas Lines Is Stopped With "Hypo-Tube"

A new and practical method of stopping gas leakage from joints or broken pipe on high or low-pressure natural gas distribution lines is announced by Gas & Electric Facilities, Ltd., 447 Sutter Street, San Francisco, Calif. The method consists of inserting a perforated tube, known as a hypo-tube, around and against the bell of the joint, pouring concrete around this joint, letting the concrete set, and then forcing a specially prepared emulsion (through the perforated tube) within the concrete against the joint. This emulsion reacts with the concrete to form insoluble salts which plug up the pores of the concrete on the inside and stop up any possible leakage. A special gas vent is used to allow the gas to escape while the concrete is setting, when a concrete joint is being installed around an extremely bad leak. If the hole must be closed the same day, calcium chloride is used to set the concrete up within four hours.

These "Antileke" pipe joints have been installed on gas distribution mains from 3 to 30-inch diameter, mains carrying gas under pressures varying from 5½ ounces to 140 pounds. The illustration shows details of the hypo-tube used in the "Antileke" method.

Announce Circuit Breaker and Disconnecting Switch

A combination oil circuit breaker and group-operated disconnecting switch, enclosed in a submersible housing, has been announced by the General Electric Co. for mounting on the walls of underground vaults. Both the circuit breaker and the disconnecting switch have manual operating levers which are so interlocked that the switch cannot be operated when the breaker is closed, nor can the breaker be closed when the switch is open. Both levers are on the outside of the case, with the operating shaft passing through water-tight packing glands.

The tank for the breaker unit has a sealing flange and a water-tight gasket. The upper part of the breaker, the disconnecting switch, and the cable-wiping sleeves are enclosed in a water-tight case having a removable cover.

The breakers are not limited to manual operation, but can be obtained equipped for operation electrically. Ratings run up to and including 15,000 volts, 2,000 amperes.

B&W. TUBE OPENS TULSA OFFICE

The Babcock & Wilcox Tube Co., Beaver Falls, Pa., has opened a district office in Tulsa at 2002 Philtower Building, under the direction of Carl J. Hochenauer. Mr. Hochenauer has had broad experience in the sale of tubular products to the oil producing and refining industries over a period of 15 years as general manager of the Interstate Pipe Co., Pittsburgh, Pa., and as manager of the steel coupling division of the A. O. Smith Corp., Milwaukee, Wis.

"How to Grind Valves," is the title of a helpful 12-page bulletin available from the South Bend Lathe Works, South Bend, Ind.

Among the Equipment Houses

The Williamsport Wire Rope Co. has been added to the list of wire rope manufacturers licensed to manufacture preformed wire rope under the American Cable Co.'s patents.

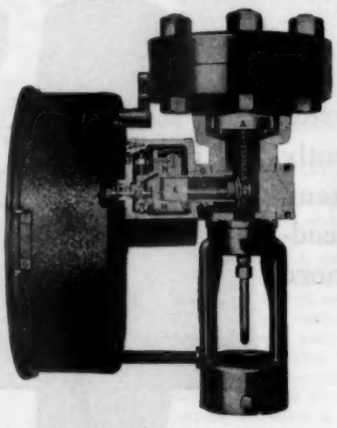
Marshall Field, III, New York capitalist, has been elected to the board of directors of the Westinghouse Electric & Manufacturing Co.

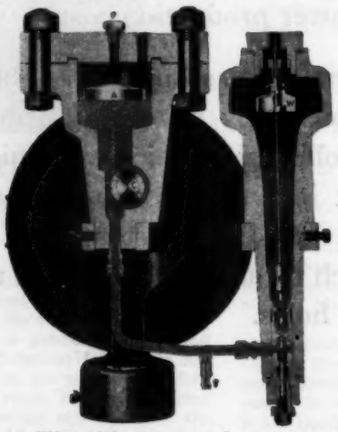
O. B. Wilson, formerly manager of the Cleveland, Ohio, office of the Brown Instrument Co., has been appointed district manager of the territory comprising Texas, Louisiana and southern Arkansas with headquarters in Houston, Tex.

F. J. Giroux has been made manager of sales of Universal arc welders in the New York district for the Universal Power Corp., Cleveland, Ohio. Mr. Giroux graduated from Oregon State College in mechanical engineering, completed a Westinghouse training course and spent three months in Europe studying welding methods and the secret process of manufacturing coated electrodes.

Tag Magnetic Clutch Flow Controller Is Announced

The Tag magnetic clutch flow controller has been put on the market by the C. J. Tagliabue Manufacturing Co., Brooklyn, N. Y. A complete line of orifice meters is available in this construction also. With a view of minimizing friction, binding, leakage and maintenance at that point the conventional pressure-tight bearing was discarded in favor of a magnetic clutch. The departure, the manufacturer says, brought with it two further advantages: (1) A regular construction suitable for 2,500 pounds working pressure and (2) ability to locate all internal parts so that they are immersed in the mercury and protected by it against moisture, dirt and corrosion. All internal parts including the float





are stainless steel, thus realizing a corrosion-proof construction and making sealing chambers unnecessary.

The clutch is said to operate the pen as positively as a mechanical coupling would. By the marked diminution of friction regardless of the pressure handled, greater accuracy has been achieved. When the float moves the rotor turns instantly. When the rotor turns the cobalt steel magnet turns in exactly the same degree because the rotor and magnets are locked together by the invisible but powerful magnetic field.

As shown in the illustrations the instrument is provided with a collar for mounting directly on a 2-inch vertical pipe stand. Just below the high-pressure chamber, between the two legs of the manometer, is the needle valve L, which damps out extreme fluctuations. The improved check valve is said positively to prevent blowing out of the mercury.

The section view shows the check valve in its normal position. The valve K is midway between upper seat P and lower seat R. The check valve being always immersed in the mercury has a buoyancy which would cause it to rise. It is prevented from rising by its collar which presses upward against the weight W, hanging from the yoke T. When because of a negative differential, the mercury rises higher than its normal maximum in the high-pressure chamber it floats the weight and thus allows the valve to rise until it closes lower seat. When because of an over-range differential the mercury falls below its normal minimum, the valve falls of its own weight (being no longer buoyed up by the mercury) and closes the upper seat.

A change in flow produces a change in differential pressure and a movement of the stainless steel float A which, by means of the stainless steel ladder chain B, turns stainless steel pulley C, and stainless steel shaft and roter E. The end of the chain is pinned to a point on pulley C which has a smooth face (not sprockets) and hence no lost motion. Chain C is always under a slight tension to keep it taut. This minute and constant pull is given by the stainless steel spring D, which has no other function.

The cylinder G is filled with mercury when the instrument is assembled and the rotor always turns in a bath of mercury.

The rotor turns in the closed end of the cylinder which is machined from nonmagnetic stainless steel. Outside, the magnetic pole-pieces N and S are locked to the rotor by invisible but powerful magnetic lines of force, so that the turning of the rotor turns the magnets outside in a frictionless and positive manner.

Rethreading Die Sets Are Introduced by Greenfield

A new line of "Slipon" Rethreading dies with GTD ratchet stocks for repairing damaged threads, has been placed on the market by the Greenfield Tap & Die Corp., Greenfield, Mass. The "Slipon," which enables the user to repair battered

threads quickly and easily, resembles an ordinary round die that has been cut in two halves, the two pieces held together by a flat spring on the side of the die. To use, it is only necessary to pull the two halves apart, slip the die over the clean, unbruised portion of the thread, drop the special ratchet stock over the die, tighten the screws, and back it off over the injured threads, which usually seem to get damaged right at the end.

The dies are made in NC (USS) and NF (SAE) threads in all sizes from one-fourth inch to 1⅛ inches, inclusive. They are stocked in several convenient assortments, or will be sold singly if desired. Every set includes a GTD ratchet stock of sturdy construction, which permits the dies to be used in close quarters. The stock can be used also to hold any round die 2 inches in diameter.

Cletrac 80 Offers Rugged Power Plant for Oil Field

The new Cletrac "80," announced by the Cleveland Tractor Co., 19300 Euclid Avenue, Cleveland, Ohio, is a compact, rugged self-propelled power plant, which handles loads totaling 90 per cent of its weight, with low maintenance cost, and is able to withstand the shocks and strains incidental to crawler tractor operation. Electric starting equipment, radiator guard, crankcase guard, and front tow hook are not listed as extra accessories, but are included in the regular specifications.

Since 1926 the Cleveland Tractor Co. has used steel forgings and pressed steel in crawler tractor construction. Fundamental assemblies formerly made up from castings have been superseded by drop-forged alloy steels, especially heat-treated and hardened to meet the service requirements of the particular assembly. Bolted or riveted channels and supports have been replaced in the present design with pressed steel sections, electrically welded.

Invention Is Designed to Stop Substitutions of Oil

Allen A. Van Orsdale of Houston, Tex., has invented and obtained patents on devices designed to prevent substitution of inferior grades of lubricating oil for the grades paid for. Mr. Van Orsdale's patents cover a nonrefillable container and dispenser which can be used for the package merchandising of motor oil at service stations. By using these appliances, Mr. Van Orsdale says, a company can guarantee that its lubricating oil is delivered to the motorist exactly as it left the refinery, unchanged and uncontaminated.

The Cooper-Bessemer Corp., Mount Vernon, Ohio, is distributing a calendar for 1933 commemorating a century of business life.

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Field Reports From All Areas, United States and Canada.

DOMESTIC EXPORTS OF PETROLEUM, REFINED PRODUCTS AND BENZOL

		1932 December	1932 Total
Crude petroleum	Bbls.	2,154,310	27,390,933
Crude petroleum	$	2,003,591	27,106,301
Natural gasoline*	Bbls.	13,218	307,989
Natural gasoline	$	18,335	532,706
Total refined products	Bbls.	4,408,596	72,015,745
Total refined products	$	11,647,163	181,349,475
Gasoline and other light products	Bbls.	1,832,595	33,867,416
Gasoline and other light products	$	4,638,931	79,357,422
Illuminating oils	Bbls.	629,944	10,866,851
Illuminating oils	$	1,504,571	23,731,541
Gas and fuel oils	Bbls.	1,240,909	17,831,456
Gas and fuel oils	$	1,211,117	16,172,674
Lubricating and transformer oils	Bbls.	450,374	6,782,335
Lubricating and transformer oils	$	3,186,358	48,875,242
Lubricating greases	Lbs.	6,471,617	64,767,895
Lubricating greases	$	253,189	2,787,623
Paraffin	Lbs.	21,597,174	235,263,394
Paraffin	$	557,745	6,266,996
Petrolatum	Lbs.	725,845	10,199,098
Petrolatum	$	46,554	611,434
Asphalt	Long tons	13,941	183,819
Asphalt	$	219,464	3,166,702
Coke (petroleum)	Long tons	12,049	79,777
Coke (petroleum)	$	29,234	379,848
Shipments, refined products to Porto Rico, Alaska and Hawii,	Bbls.	196,169	3,766,012
Shipments crude oil to Porto Rico, Alaska and Hawaii	Bbls.	.....	3,100
Exports, refined products from Porto Rico, Alaska and Hawaii,	Bbls.	5,357	109,663
Bunker oil for vessels in foreign trade	Bbls.	2,750,803	38,152,402
Exports, benzol	Gals.	73,296	3,241,317

*Prior to January 1, 1932, included in refined gasoline.